Exploring the Influence of National Culture on Performance Management Systems

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Abstract

Globalisation has resulted in the increase of internationalisation for large and small organisations alike. Since Performance Management Systems (PMS) are vitally used by top management to make them aware of their attainment of the planned organisational goals, their use has become widespread in most companies (Speckbacher et al., 2003). At the same time, the expansion of organisations outside their birthplaces has compelled top managers to use their home developed Performance Management Systems in different cultures. Each national culture has its unique combination of National Culture dimensions, which had originally emerged from the anthropology field (Nardon & Steers, 2009, House et al., 2004). This phenomenon prompted scholars to call for the investigation of the impact of national culture on performance management systems (Otley, 2003). Therefore, the aim of the study is to investigate the impact of national culture on the design and use of Performance Management Systems. The researcher first reviewed published literature in performance measurement and management control systems, but found it to be scarce and fragmented; an inductive case study design was employed to collect data from four diverse national cultures to bridge the knowledge gap. Four national cultures were tested: China, Italy, Qatar and the UK. The researcher used Hofstede's (1980) framework of national culture to map the relationship between the design and use of Performance Management System in different national cultures. The research findings confirmed that national culture dimensions of Power Distance (PD) and Uncertainty Avoidance (UA) impact the design and use of Performance Management Systems individually or combined. PD dimension influence starting a balanced PMS, the degree of collaboration in Performance Management Systems' design, the intended aim of Performance Management Systems' implementation, type of performance measures employed, Performance Management Systems' adoption and the frequency of Performance Management Systems' use. While UA dimension influences information accessibility and collaboration patterns in PMS use. The research also identified different moderators that affect the action of national culture dimensions such as leaders' age, and education and innovation based goods.

Dedication

My family had been my greatest supporters starting with my father who had been the bedrock as he supported this research project relentlessly and efficiently. My mother, whose love and prayers have kept the project rolling, and she kept kindling the flame of the project motivation throughout. My wife, whom we carried out much of the burden of this long journey, especially during my home absence periods, and who could accommodate the transfer to a new country and culture of the UK. My children: Sawsan, Huda, Sara and our newest addition to our small family: Maamoun and Ghalia whom I borrow their enthusiasm and spirit when needed. My brothers and sisters Asmaa, Aref, Nusaiba, Husna, Iqbal, Mustapha, and Aisha, who sustained their affection and support to my family and me despite their heavy responsibilities. My in-laws Khalid, Anas and Yazan, who have supported my efforts. I wish to thank my uncles, aunts: Zuhair, Haifa, Rashad, Adel, Abdul Munem, Ahmad, Nadwa, Nashwa, Sabwa, Fatema, Maisoon and their families who kept motivating me and caring about us. I also wish to acknowledge motivation and support from my wife's family who took care of our family during the early research period and were of great help. Finally, I dedicate my work to my dearest friends whom I consider them as my family: Mr & Mrs Hamid of London, whose friendship I always honour and cherish.

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ACADEMIC REGISTRY

Research Thesis Submission

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Glossary

Collaboration	Describing the degree of employees' participation in the Performance Management System design, which could include informing and involving them with specifying the type of performance measures, and expected performance target, and so on.
Culture	The customary beliefs, social forms, and material traits of a racial, religious, or social group
Employees /staff	Any person or members of organisations who do not have managerial responsibilities
Empowerment	Is the degree to which employees are encouraged to make certain decisions without consulting their managers
Leader (s) /General Manger (GM)	Person(s) who undertake(s) the job of *top* management
Individualism (IDV)	The relationship between the individual and the group in society, dependence vs. interdependence
Managers/management/executives	Any person(s) who undertakes the job of line manager or member(s) of middle management sector
Masculinity (MAS)	Measures the degree to which cultures view achievement, heroism, assertivism, and material success.
National culture (NC)	The collective mental programming of the people in a national context
Organisational culture (OC)	Set of beliefs, values, and assumptions that are shared by members of an organisation
Performance Management	The action of comparing actual performance measurement with the intended performance levels, and forming a judgement as to what should be done next

Performance management system (PMS)	Management framework that achieves an organisation’s objective(s) through first measuring and reporting current actual performance and comparing it with the desired level of performance, and, second, delivering the appropriate behaviour and response to the measurement results
Performance Measures (PM)	A metric used to quantify the efficiency and/or effectiveness of action
Performance Measurement	The process of quantifying the efficiency and effectiveness of action
Performance measurement system	A set of metrics used to quantify both the efficiency and effectiveness of action
Performance Management System Design	The Performance Management System design is a process of the action of designing and identifying the performance measures that best reflect the organisation's key objectives.
Performance Management System Maturity	The ability of a Performance Management System to respond to the environment in an appropriate manner
Performance Management System Use	Benefiting from the performance results and responding to the organisation's strategy
Power Distance (PD)	The extent to which people accept unequal power
Term Orientation (TO)	Measures of the degree to which cultures focus on long-term or short-term outcomes.
The West	The West or western world includes Europe, as well as countries of European colonial origin with substantial European ancestral populations in the Americas and Oceania.'
Uncertainty Avoidance (UA)	Measures expected reactions to situations considered unpredicted and dangerous

List of Publications by the Candidate

Jwijati, IM & Bititci, US, (2016): *Exploring the influence of national culture on the design and use of Performance Management System*, on Performance Measurement Association, PMA 2016 Conference, 26th – 29th June 2016, Edinburgh, Scotland.

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Chapter 1 Introduction

1.1. Research Overview

The rate at which organisations have been adopting performance measurement has been accelerating over the last two decades, and it has become one of the most widespread organisational management practices (Kennerley & Neely, 2003). The efficient use of Performance Management Systems has seen to facilitate better communication with employees, testing the effectiveness of existing strategies and motivating employees. The use of balanced performance management systems has being acknowledged to present an advantage more than traditional financial performance management systems (Davis & Albright, 2004).

As the 21st century progresses, globalisation and information technologies are advancing at rapidly increasing rates, leading to record levels of internationalisation and collaboration across different cultures. Cross-cultural expansion has previously been restricted to large multinationals only; this is no longer the case, as smaller organisations are expanding across cultural boundaries to access new markets and opportunities. Organisations are purchasing materials and services, developing value networks, and differentiating the design of their products to sell in different geographic regions (Pagell et al., 2005; Hansen & Birkinshaw, 2007; Pisano & Verganti, 2008; Chesbrough & Garman, 2009). Otley, 2003 asked whether Performance Management Systems that are efficient in one national culture would be similarly effective if used in others. What are the likely outcomes when new operations initiated in new locations and national cultures use Performance Management Systems that were designed to be used by parent companies in probably different cultures? Some scholars have called for further research in this area, stressing the need to understand the influence of national culture on management systems (Tayeb, 1995; O'Connor, 1995; Otley, 2003).

Clearly, there is a certain degree of recognition that behavioural elements emanating from employees, managers and other stakeholder tend to influence Performance Management Systems (Simons, 2000; Otley, 2003; de Waal, 2003). Thus, some had called to create alignment between performance measurement systems and the people embedded cultural elements (Bourne, 2005; Mendibil and MacBryde, 2006). Since,

national culture is considered one of the known behavioural elements, its impact has been investigated by Lindholm, 2000; Lau & Chong, 2002; Chow et al., 1999. However, there appears to be a scarcity of knowledge on "HOW" national culture shapes and influences Performance Management Systems, i.e. a specific understanding of how a national culture dimension(s) may affect the attitude to performance measures, what is measured, and how these metrics are reported, shared and acted. Thus, the initial research question of this research is **"how do national culture influence Performance Management Systems, if at all?"**

The literature review first explored the performance measurement and national culture literature in general. Then conducted a systematic literature review exploring the impact of national culture on Performance Management Systems. The resulting conclusion was that although the impact of national culture on Performance Management System is a well-recognised phenomenon, there is a scarcity of research that provides insights on ***how*** National Culture (NC) affects Performance Management Systems, which indicates a clear gap in knowledge. Also, the literature reveals that National Culture may impact on Performance Management System in different ways depending on the Performance Management System Lifecycle, i.e. design, implement, use and review (design and use for short). This leads to the development of two specific research questions, as follows:

- How does National Culture impact on the design of Performance Management System?
- How does National Culture impact on the use of Performance Management System?

The Literature Review also concluded that the current state of knowledge is not sufficient to construct a deductive conceptual model that can be tested in an empirical study, thus reinforcing the need for and inductive study to explore the above research questions. The literature review led to the construction of a theoretical model, based on organisational control theory, as an exploratory research instrument to enable this inductive study, which is then used to conduct eight case studies representing four national cultures.

The thesis contributes to the organisational control theory in general and the Performance Measurement (PM) body of knowledge in particular by explicating the impact of National Culture (NC) in the design and use of Performance Management

System. Broadly, Power Distance (PD) and Uncertainty Avoidance (UA) dimensions of national culture emerge as the most significant characteristics of national culture that influence the design and use of performance measurement systems. The findings were reported in the form of seven propositions that explains *How* National Culture impacts on the Performance Management Systems Design and Use (PMSs). In doing so, the research contributes specifically to the body of knowledge in the field of Performance Management Systems and Performance Measurement as well as providing a new research instrument, based on organisational control theory, for further such studies.

1.2. Method Employed in the Research

The thesis employed an inductive approach using eight fine ingrained cases studies from four diverse national cultures. The research design investigated in-depth qualitative data because the understanding of cases' context helps to answer the research question. Data were gathered using semi-structured interviews, observations and the analysis of documents.

1.3. Significance of the Research

Globalisation has encouraged organisations, including SMEs, to expand worldwide in looking for new sources or entering new markets. A performance management system is a management framework used for communicating strategy, motivating employees, and as a management decision-making tool. However, following global expansion, organisations must implement their Performance Management Systems in different national cultures, which may differ significantly from the original national culture. Considering present knowledge of the importance of organisational culture to Performance Management Systems, and knowing that national culture has an influence on organisational culture, a question arises regarding the degree to which national culture affects individual preferences for, and reactions to, Performance Management Systems. Thus, there is a need to understand whether Performance Management Systems and management practices proven to be effective in one environment, might be ineffective, or even dysfunctional, in other settings.

Every culture is unique and people as consumers or employees differ by their surroundings and cultural orientation. Hence, it is necessary to understand the effect of national culture on the Performance Management Systems Design and Use could help identify motivations for employees in different cultures, and guide managers to shape

organisational interests. The findings of this research would also be helpful to academics, who are looking to understand the impact of different cultures on the design and use of Performance Management Systems. Practitioners as well, findings can inform them of ways in which national culture influences the design and use of Performance Management Systems. Understanding the effect of national culture would help to reduce cultural deployment errors about Performance Management Systems, and reduce the emotional and material losses associated with failed Performance Management Systems (PMS) implementations.

1.4. Research Outline

The aim of the study is to understand and explore national culture dimensions impact on the Performance Management Systems design and use. A systematic literature review was conducted to identify previous research on the topic. However, it became apparent that most previous research has been carried out from an accountancy perspective; therefore, an inductive qualitative case study research was designed to investigate the effect of national culture on the use of Performance Management Systems. The following section outlines the composition of the present thesis; it is comprised of six chapters, arranged as follows:

Chapter One outlines the background to the research, the research objectives, the findings and the significance of the study. **Chapter Two** contains an exploratory literature review explaining the concept of a performance management system, defining culture, and specifically the national and organisational culture. The literature review found a gap in the literature, and stated the research aim and mentioned the research questions. **Chapter Three** describes the research philosophy, justify the different research methods used to address the various research questions, and explain the different philosophical assumptions and methodologies used to study management topics. **Chapter Four** presents the research method used to answer the research questions based upon the researcher's philosophical assumptions; this chapter also provides detail regarding the field work and the preparations for the study, such as the research protocol, data reduction, data display, and other steps. **Chapter Five** reports the findings of the undertaken case studies. **Chapter Six**, contains the listed research propositions and tends to discuss them in contrast to other published literature; presenting the contribution of the study, as well as confirming the finding with

previously published literature. An assessment of the quality of the research is presented. The conclusion present theoretical and practical contributions, limitations and recommendation for future studies. The final part of the thesis contains three appendices: **Appendix A** is a table stating the differences between existing national culture frameworks. **Appendix B** contains the reports written for the eight cases studies. **Appendix C** contains the study's research protocol. Table 1.1 presents a summary of the thesis structure.

Table 1.1 The Thesis Structure

Chapter	Contents	Key outcomes/Conclusions
Chapter 1: Introduction	**Research Overview** **Summary of the research design.** **Significance of the research** **Research outline**	**Research questions:** **How does National Culture impact on the design of Performance Management System?** **How does National Culture impact on the use of Performance Management System?**
Chapter 2: Literature Review	**Performance Management Systems and their lifecycle stages of design, implementation, use and review.** **Culture in general, organisational and national culture.** **The impact of culture on Performance Management Systems.**	**There is a clear need to investigate the role of national culture in the design and use of Performance Management Systems.** **A theoretical framework is intended to investigate the impact of national culture on the design and use of Performance Management System**
Chapter 3: Management Research Methods	**Outlines different choices that are available for management researchers.**	**Explained various research philosophies, ontologies, epistemologies, methods and research approaches**
Chapter 4: Research Design	**Discusses the research design and justifies the choices made regarding the philosophies, epistemologies, research approach and research methods.** **Determining the research design elements, such as the number of cases, number of national cultures investigated, types of data analysis employed,**	**Ontology: Relativism** **Epistemology: Constructionism.** **Research approach: inductive.** **Research method: a case study.** **Chosen number of samples: Eight.** **Selected national cultures: China, Italy, Qatar and the UK.** **Stating the undertaken steps in the case research method** **Developing, and using the research protocol** **Describing the data analysis employed** **Stating employed methods to determine the quality of research**
Chapter 5: Findings	**Presents the empirical data collected from each of the eight case studies.**	**Reporting the findings of each case study** **Reporting the within case analysis.** **Stating the cross-case analysis and the propositions**
Chapter 6: Discussion and Conclusion	**Compares propositions with previous literature.**	**Classifying the findings into contributions and confirmations of the existing body of knowledge.** **Stating the personal reflections of the researcher and advising for future research and explaining the research limitations.**

Chapter 2 Literature Review

2.1. Introduction

The objective of this research is to contribute to the existing body of knowledge by seeking to examine and account for the effect of national culture on the Performance Management Systems Design and Use (Performance Management System). Thus, the purpose of the literature review is twofold. First, to set boundaries around the field of Performance Management System by examining the field in general and developing the key definitions. Second, to explore the current state of knowledge about the research question. The literature review provides a comprehensive background to Performance Management System, explaining key definitions, describing the historical evolution of Performance Management System, explaining the factors affecting the successful implementation of Performance Management System, highlighting some of the current trends in performance measurement research and the Performance Management System Lifecycle.

The second section introduces the concept of culture, in general, explaining organisational and national culture, and briefly comparing various types of national cultural frameworks. The third section presents findings of systematic literature reviews concerning the effect of national culture on Performance Management Systems. The fourth section summarises the results of the literature review, and the fifth section presents the theoretical framework designed to investigate the impact of national cultures on the design and use of Performance Management Systems.

2.2. Definition of Performance Management Systems (PMS)

There are several terms in performance measurement that should be defined, such as performance measure or metric, performance measurement, performance measurement system, and performance management systems. Neely *et al.* (1995, pp. 81-82) define a performance measure and performance measurement system as:

"A performance measure can be defined as a metric used to quantify the efficiency and effectiveness of action".

“Performance measurement can be defined as the process of quantifying the efficiency and effectiveness of action..."

“A performance measurement system can be defined as the set of metrics used to quantify both the efficiency and effectiveness of action”.

The metrics used in a performance measurement system, refer to a set of different performance measures, which include financial, non-financial, internal and external measures of performance (Bourne *et al.,* 2003). While *performance measurement* concerns are quantifying performance, *performance management* describes the action of comparing actual performance measurement with the intended performance levels and forming a judgement as to what should be done next (Adair *et al.,* 2003). Activities necessary to achieve the successful deployment of performance measurement systems, such as shared organisational vision, teamwork, incentives, a degree of employee involvement, communication activities, efficient management style, and so on, are essential components of a performance management system (Lebas, 1995). Therefore, combining the above descriptions, a performance management system can be defined as a management framework that achieves an organisation’s objective(s) through first measuring and reporting current actual performance. The next stage is to compare these results with the desired level of performance; and, then deliver the appropriate behaviour and response to the measurement results (Pavlov & Bourne, 2011; Bititci *et al.,* 2012; Melnyk *et al.,* 2014).

The definitions above are alike in their recognition that there are certain behavioural influences on the Performance Management System, which implies that the process of using a Performance Management System is not merely a mechanical process. In fact, the behavioural aspect of Performance Management Systems has been mentioned by many scholars (de Waal, 2002; de Waal, 2006; Henri, 2006; Franco-Santos *et al.,* 2012).

2.3. Historical Evolution of Performance Measurement

This section discusses the development of performance measurement, beginning with the contributions of early authors who advocated the use of ‘performance measurement’. Although the notion of performance measurement and management has been around for some time, it was Johnson and Kaplan’s (1987) who popularised it by their seminal publication, *Management Accounting; Relevance Lost*. Since then the theory and practice of performance measurement and management have attracted

significant attention from both researchers and practitioners. In fact, (Neely, 1999, p. 207) identified a "performance measurement revolution," counting 3,615 papers on performance measurement published between 1994 and 1996. Research on performance measurement and management over the past twenty years has evolved from understanding and developing the techniques of measurement, to discovering the effect of using performance measurement in attaining strategic objectives, that is, management (Neely *et al.*, 2005; Bititci *et al.*, 2014). Later, the concept of *balanced* performance measures gained prominence (Eccles, 1991; Dixon *et al.*, 1990; Kaplan & Norton, 1992; Neely *et al.*, 1996). Several balanced performance frameworks emerged, such as: the performance measurement matrix (Keegan *et al.*, 1989), performance pyramid system (Lynch & Cross, 1991), result and determinants framework (Fitzgerald *et al.*, 1991; Fitzgerald & Moon, 1996), balanced scorecard (Kaplan & Norton 1992, 1996), integrated performance measurement system (Bititci *et al.*, 1997), and performance prism (Neely *et al.*, 2002), some of which are being briefly described below.

- A performance measurement matrix (Keegan *et al.*, 1989) is a framework that helps an organisation define its strategic objectives and translate these aims into performance measures, using a hierarchical and integrated approach. A two-by-two matrix combines cost and non-cost perspectives with external and internal perspectives. It is flexible and straightforward, though its simplicity is criticised for ignoring some important indicators seen in other frameworks.
- A performance pyramid system (Lynch & Cross, 1991) model is a pyramid built on four levels, illustrating the links between corporate strategy, strategic business units and operations. The strategic objectives are located at the top of the prism. The framework measures stakeholder satisfaction and operational activity. The model describes both the relationship between different indicators and the management process.
- A results and determinants framework (Fitzgerald *et al.*, 1991; Fitzgerald & Moon 1996) focuses on the relationship between results and determinants. Six dimensions are divided into results (competitiveness, financial performance) and determinants of these results (quality of service, flexibility, resource utilisation and innovation). This framework introduces a link between performance indicators and performance objectives. Also, the framework links all aspects with competitiveness.

- The balanced scorecard (Kaplan & Norton 1992, 1996, 2001; Bhagwat & Sharma, 2007) is one of most popular management frameworks. It aims to provide management with balanced measures according to four perspectives: financial, customer, internal processes, and learning and growth. The financial aspect measures the organisation's ability to make a profit through measures such as profitability, cash flow, and return on capital. The customer measure indicators include market share, customer retention, customer perception and satisfaction. The internal process aspect measures key processes that the organisation depends upon to compete, providing an overall picture of the organisation's efficiency. Finally, the learning and growth aspect measures the organisation's ability to add value using continuing learning.
- An integrated performance measurement system (Bititci *et al.,* 1997) is an information system that enables the performance management process to function effectively and efficiently. The framework underlines two main facets of the Performance Management Systems: integrity, which is the ability of the Performance Management System to promote the integration of various areas of business; and deployment, which refers to the deployment of business objectives via four levels, where the higher levels become stakeholders in, the lower level. This model is based on four levels (corporate, business units, business processes and activities) and at each of these levels, five key factors are considered (stakeholders, control criteria, external measures, improvement objectives and internal measures). This classification makes it possible to define the most appropriate types of the performance system. The classification enables one to build a design that suits internal, external, capability and learning measures.
- The performance prism (Neely *et al.,* 2002; Neely *et al.,* 2001) is a five-dimensional model that aims to measure the performance of the whole organisation. The five prism faces correspond to stakeholder satisfaction, strategies, processes, capabilities and stakeholder contribution. Stakeholder satisfaction measures explain the identity of interested parties and their similar needs. The strategy measures describe the approaches required to satisfy the wants and needs of stakeholders. In processes, information about critical process requirements is needed to execute strategies. Capabilities refer to the magnitude of the required contributions from stakeholders to maintain and develop planned capabilities.

The above frameworks attempt to balance performance measures by introducing non-financial measures, and measuring expected as well as past performances to give stakeholders more ability to control and improve performance. However, despite the wide variety of methods used, and the different performance dimensions utilised in the above performance measurement frameworks, they lack three essential aspects. First, the performance measurement frameworks listed above do not include implementation routines in their design; and it is noted that the application has proven to be vital, as high rates of implementation failures have been reported (McCunn, 1998). Second, the frameworks were designed in the West[1], and are based on Western management knowledge and culture; further research is needed to understand the influence of these management tools in different national cultures, which is the aim of this study. Third, in turbulent environments, which are now widespread (Harrington *et al.,* 2011), there is a need to mitigate such disruptions by designing flexible systems that ensure the attainment of organisational objectives without collapsing under turbulence related pressures.

2.3.1. Factors influencing Performance Management System implementation

The mentioned performance revolution has resulted in the extensive development of various performance measurement frameworks, and researchers have debated different techniques and methods for deploying Performance Management System (Meekings, 1995; Bourne *et al.,* 2000; Neely *et al.,* 2000). However, researchers have also observed high rates of implementation failures (McCunn, 1998). Various factors have been attributed to successful implementation are shown in Table 2.1. These factors are grouped using (Pettigrew, 1987) framework of process, content and context. 'Process factors' refer to the processes of design, implementation, and use, such as ensuring

[1] 'The West or western world includes Europe, as well as countries of European colonial origin with substantial European ancestral populations in the Americas and Oceania' (Thomson & Hickey, 2005).

implementation priority, appropriate management capacity, ensuring top management commitment and availability of resources, prioritising regular reviews and updates, communicating vertically through the organisation, and more.

'Content factors' relate to the suitability of the performance metrics to their intended purpose, and to the alignment between the performance management system and the applied strategy. Contextual factors are divided into internal and external factors; internal contextual factors include the availability of a supportive organisational culture, reducing employee resistance to the implementation of performance measures, the availability of an appropriate management style, empowering employees and so on. External contextual factors include organisational size, governance structure, industry type and the nature of the environment.

Table 2.1 shows that contextual, process, and content factors which influence the Performance Management Systems implementation. Contextual factors are: organisational culture (Bititci *et al.,* 2004, 2006; Henri, 2006), organisation size (Hoque & James, 2000), organisation and governance type (Garengo & Bititci, 2007), nature of industry and external environment (Perrow, 1967; Khandwalla, 1972; Gordon & Narayanan, 1984; Simons, 1987; Govindarajan, 1988; Firth, 1996; Chow *et al.,* 1999; O'Connor *et al.,* 2004).

2.3.2. Research trends in Performance Management System

Recent studies seem to direct our attention towards investigating the impact of context, PMS users' behaviour towards Performance Measurement and the impact of new forms of organisations. New structures which resulted from globalisation and the accelerating rate of change contributed to having new environments which are prompting researchers to investigate its impact on performance measurement.

Previous research had explored the implications of particular contextual factors on Performance Measurement such as: large organisations (Kaplan & Norton, 1996), SMEs (Hudson *et al.,* 2001; Taylor & Taylor, 2014), public organisations (Poister & Streib, 1999; Carmona & Granlund, 2003; Greatbanks & Tapp, 2007), and not-for-profit organizations (Aidemark, 2001; Kershaw & Kershaw, 2001; Brewer, 2002). Their findings indicate that applicability of Performance Management System in any context, though the PMS design and implementation should be considered in different contexts.

Table 2.1 Types of Performance Management System Implementation Factors

	Performance Management System's Implementation Factors	References
Process	**Top management commitment**	**Bourne *et al.*, 2000; Bourne, 2005; Franco-Santos & Bourne, 2005; Nudurupati & Bititci, 2005; Cheng *et al.*, 2007; de Waal & Counet, 2009; Tung *et al.*, 2011; Waggoner *et al.*, 1999**
	Effective implementation team	**Ukko *et al.*, 2007; de Waal & Counet, 2009; Tung *et al.*, 2011**
	Eliminating the risk of political interferences	**Meekings, 1995; Waggoner *et al.*, 1999; Neely & Bourne, 2000; Li & Tang, 2009**
	Clear implementation priority	**Cheng *et al.*, 2007; de Waal & Counet, 2009**
	Availability of enough resources for Performance Management System deployment	**Lewy & du Mee 1998; McCunn 1998; Schneiderman (1999); Bourne, 2001; Garengo *et al.*, 2005**
	Effective communication	**Franco-Santos & Bourne, 2005;**
	Regular Performance Management System use	**Franco-Santos & Bourne, 2005; Cheng *et al.*, 2007; de Waal & Counet, 2009**
	Regularly review and update of Performance Management System	**Franco-Santos & Bourne, 2005; de Waal & Counet, 2009**
	Availability of capable IT facilities	**Hudson *et al*, 1999; Bourne et al., 2000; Bourne *et al.*, 2002; Franco-Santos & Bourne, 2005; Nudurupati & Bititci, 2005; Garengo & Bititci, 2007**
Content	**Aligning Performance Management System with strategy**	**Schneiderman 1999; Hudson *et al.*, 2001; Bourne *et al.*, 2002; Braam & Nijssen, 2004; Franco-Santos & Bourne, 2005; Garengo & Bititci, 2007; Bedford *et al.*, 2008**
	Designing well defined and relevant performance measures	**Franco-Santos & Bourne, 2003; Waggoner *et al.*, 1999; Hudson *et al.*, 2001**
Internal Context	**The existence of supportive culture**	**Meekings, 1995; Hacker & Brotherton 1998; Mooraj *et al.*,1999; Bourne *et al.*, 2002; Bititci et al., 2006; Cheng *et al.*, 2007; Garengo & Bititci, 2007; Li & Tang, 2009; Waggoner et al., 1999**
	Appropriate management style	**Hacker & Brotherton 1998; Waggoner *et al.*, 1999; Ahn, 2001; Garengo *et al.*, 2005; Hudson-Smith & Smith, 2007; Bititci et al., 2006; Garengo & Bititci, 2007; de Waal & Counet, 2007; Abernethy et al., 2010**
	Reducing employees' resistance	**Bourne *et al.*, 2000; Nudurupati & Bititci, 2005; de Waal & Counet, 2009; Waggoner *et al.*, 1999**
	Empowering employees'	**Franco-Santos & Bourne, 2005; Decoene & Bruggeman, 2006; Li & Tang, 2009; Atkinson, 2006**
External Context	**Contextual factors: firm size, governance, organisational structure, industry type and environment**	**Bourne *et al.*, 2002; Franco-Santos & Bourne, 2005; Garengo *et al.*, 2005; Garengo & Bititci, 2007; Waggoner *et al.*, 1999**

The impact of Behavioural attributes of PMS users have been acknowledged (Otley 1999; Bourne *et al*. 2005; Bititci *et al.* 2012; Neely *et al.,* 2005). Simons, 2000 suggested that behavioural attributes such as users' desire to contribute to where they work, their eagerness to learn, and their intent to achieve and innovate matter to performance measurement. Therefore, to ensure the effective design and use of Performance Management Systems, organisations should consider the possible effects of behavioural factors of PMS users.

In the past five years, research on performance measurement has reached a "crossroads" (Bourne *et al.,* 2014; p. 117). Several issues are still far from being understood, such as the effect of globalisation, the impact of pervasive high-speed internet connectivity, and the implications of highly turbulent environments (Harrington *et al.,* 2011); all pose implications for Performance Management System. Bititci *et al.,* 2012 called to investigate the role of culture, collaborative organisations, autopoietic networks, dynamic environment, open innovation, sustainability, servitization and project management on performance measurement. Melnyk *et al.* (2014) have argued that the effect of globalisation and the impact of high-speed connectivity, coupled with a turbulent environment, has resulted in the emergence of complex and demanding customers, which creates more risk in business transactions. Consequently, they express the need to incorporate risk management into performance management. Changes in behaviours and the interactions between people and performance require cultural sensitivity or, what Bourne *et al.* (2014, p.118) call "subtlety" in using performance measures to manage an organisation. New realities have made waves in the business world, such as the increased focus on innovation (Pink, 2005). Stakeholders now need specific performance measurements to measure the outputs and outcomes of creativity (Melnyk *et al.,* 2014).

Most important is the question of whether performance measurement is robust enough to reliably predict and prevent crises of the magnitude of the 2008 banking crisis (Bititci *et al.,* 2012; Bourne *et al.,* 2014). The pattern of change has been observable in the contextual environments surrounding organisations, how will PMSs evolve in response? There need to study the change and to prepare Performance Management Systems to respond to these extremely dynamic and changing customer requirements.

2.4. Performance Management System Lifecycle

Mintzberg & Walters, (1985) classified change as emergent and planned in response to external stimuli. For this research, and in this context, the introduction of Performance Management System in an organisation can be both planned and emergent. When an organisation purposefully sets out to design and implement a performance management system and, over time, it purposefully reviews, redesigns, implements and uses a performance management system; it would be considered that the Performance Management System Lifecycle was planned. Similarly, if an organisation introduces new measures and changes existing measures in response to external stimuli (e.g. customer demand, parent company requirements and so on), its performance management system are considered emergent. Thus, it is argued that all Performance Management System lifecycles be 'cybernetic,' whether planned or emergent.

Performance Management System Lifecycle contains four stages: Design, implementation, use and review stages (Bourn & Neely, 2000; Kennerley & Neely, 2003; Nudurupati & Bititci, 2005; Bititci et al., 2006). Research has found that the influence of organisational culture is different depending on Performance Management System Lifecycle phase (Bourne et al., 2003; Bititci et al., 2006). Therefore, to better understand the influence of national culture on Performance Management Systems, there is a need to explain the concept of the Performance Management System Lifecycle further.

2.4.1. Performance Management System Design

The Performance Management System's *design stage* is preceded by the stakeholders establishing and determining the organisation's aims and objectives. The design process is the action of designing and identifying the performance measures that best reflect the organisation's key objectives (Bourne *et al.,* 2000). The characteristic of useful performance measures are: derived from strategy, clearly defined, relevant and easy to maintain, simple to understand and use, provide fast and accurate feedback, and stimulate continuous improvement (Neely *et al.,* 1996; Lynch & Cross, 1991).

The design stage is comprised of clarifying the strategy of the organisation, describing the processes needed to determine the strategy, identifying the measures required to determine the success or failure of the processes, designing the performance measures, deciding the range of targets associated with excellent, acceptable and bad performance

and, finally, defining the reporting and collection methods (Cross & Lynch, 1988/1989; Kaplan & Norton, 1992; Neely *et al.,* 1996; Neely *et al.,* 2001; Garengo *et al.,* 2005; Pun & White, 2005; Nudurupati & Bititci, 2005; Mettänen, 2005; Shepherd & Gunter, 2006).

Bourne *et al*. (2000) reported that there is a consensus among researchers that performance measures should be linked to strategy (Mintzberg, 1983; Keegan *et al.,* 1989; Dixon *et al.,* 1990; Kaplan & Norton, 1992). There are some different design approaches; a non-collaborative approach involves design by leaders only or managers only (Agostino & Arnaboldi, 2011), while a collaborative approach involves leaders and managers and, possibly, everybody in the organisation (Agostino & Arnaboldi, 2011). A non-collaborative approach can be top down or bottom up. In the top-down approach, managers simply receive objective performance metrics and targets from the leaders[2], and their job is, ultimately, to implement these. In such cases, managers would likely not understand the aim behind special performance reports, and there might be resistance and disengagement with the measurement process. In the bottom-up approach, the top management supports the process but is not involved in the design (Braam & Nijssen, 2004). In such cases, managers design their metrics for their departments; in these instances, performance measures are usually simply operational targets, while leaders retain the use of traditional financial measures (Kleingeld *et al.,* 2004; Ferreira & Otley, 2009; Agostino & Arnaboldi, 2011).

In the collaborative approach, managers participate in the Performance Management System design process. Typically, they consult with their subordinates, accepting contributions from the bottom of the hierarchy to the top. Some scholars consider employee participation to be positive, as it assists in reducing resistance and improves motivation (Otley, 1999; Franco & Bourne, 2003; Garengo & Biazzo, 2012). However, most of these studies are based on research activities carried out in the Western world,

[2] Leaders in this research refer to any person(s) who undertakes the job of *top* management, while manager(s) refers to a line manager or member(s) of middle management, and employees refer to members of organisations who do not have managerial responsibilities.

which raises the issue of whether Performance Management System design practices will work in other parts of the world.

Regarding *what* is being measured, different taxonomies have been suggested for performance measures or metrics. Performance Measures had been classified based on audience, (Braam and Nijssen, 2004), performance measure function (Merchant, 1998; Chenhall, 2003; Ferreira & Otley, 2009), or the maturity of the performance measures (Speckbacher *et al.,* 2003).

The audience could be local, corporate and joint. Local measures are operational performance measures that deal with departmental operational performance targets, such as the number of complaints and process completion time, among other objectives. Corporate measures are more externally-oriented performance measures aimed at benchmarking performance measures to competitors, such as sales, market share, and percentage of market growth. Joint performance measures are internally-oriented performance measures designed to comparing departments and units within the organisation on matters such as budget variance and absence through illness (Braam and Nijssen, 2004). This classification is practical and assists internal and external benchmarking, but it has a disadvantage in that it was difficult to find comparable entities across the whole organisation. Some departments have different characteristics and cannot be compared to the rest of the organisation; furthermore, the obvious comparison is difficult in some industries, because of data secrecy, different accounting systems, various external factors and other factors.

Function based performance measures could be result, action, or personnel/culture performance measures. Result measures control numerical targets, such as the expected output. Hence it is measurable and definable. Meanwhile, action controls measure behaviour rather than value or result. They refer to the expected behaviour, by monitoring and direct observation. Therefore there is an element of subjectivity in these measures. Lastly, personnel/cultural measures focus on training, job design, and recruitment, thus relying on promoting shared norms and values to induce self-control among employees. Cultural/personnel measures are sometimes called upon because they ensure that employees behave culturally in the same way as other employees (Merchant, 1998; Merchant & Van der Stede, 2003).

Subjectivity and objectivity are used as classifications by Chenhall (2003) and Ferreira and Otley, (2009), where objective measures are those based on facts and quantifiable figures, and can be independently observed. By contrast, subjective measures are based

on opinions and perceptions, which make the task of verifying them difficult (Nudurupati *et al.,* 2011). Despite the appeal of this classification, subjective measures can be difficult to define, especially in multiple activities, and combining objective and subjective measures could be hard to deploy for managers who have varied responsibilities.

Speckbacher *et al.* (2003) classify Performance Management Systems according to the maturity of the performance measures used. First, Type I, which is described as the most basic performance measurement system, is comprised of financial and non-financial measures only. Type II Performance Management System links strategy to Type I Performance Management System, regarding cause-and-effect relationships. Type III Performance Management System, which is in addition to Type II Performance Management System, has an elaborate implementation plan and connects incentives with Performance Management System results. Speckbacher *et al.*'s 2003 typology is helpful, but it looks at measures only from this perspective, even though there are other possible perspectives; also, it assumes that the three types are 'incrementally related,' which might not always be the case (Franco-Santos *et al.,* 2012).

Despite the importance of these taxonomies, there are other different types of performance measures, such as direct and indirect, leading and lagging, monetary and non-monetary and result and cause. In conclusion, business leaders should try to have similar Performance Measures, to all easy benchmarking. It seems likely that there is occasionally need to combine all the taxonomies to produce a practical and useful performance framework.

2.4.2. Performance Management System Implementation

The *implementation stage* of Performance Management System is the process where the designed metrics or performance measures and procedures are put in place to collect and process data regularly and reliably (Chesley & Wenger, 1999; Van der Zee & de Jong 1999; Bourne *et al.,* 2000; Ittner & Larker, 2003). Implementation is considered successful when the system becomes stable with fixed performance measures, information system data, and target levels (Smith, 2007; Vike, 2007). This process includes practical steps to ensure the success of the implementation, such as data creation, data collection, and data analysis (Nudurupati & Bititci, 2005). Also, it involves determining the best routes to achieve the implementation process, that is, HR

planning, training and other possible changes, such as financial, technological, and other resources, the cost of implementation, and the reward and sanctions offered (Meekings, 1995). Failures could damage implementation, and many reasons could underlie the collapse of the measurement process, such as the behaviour of employees, which is one of the leading causes of implementation failure (Neely *et al.,* 2000). Thus, understanding the factors contributing to the failure of Performance Management System is helpful in reducing the chance of failure and avoiding financial and emotional losses accompanying it.

2.4.3. Performance Management System Use

The *use stage* of Performance Management System is the stage where the stakeholders benefit from the performance measurement results and assess the implementation of their strategies, and challenge their current strategic assumptions. Performance Management System use is discussed regarding two specific areas, the first is how the measures are reported and reviewed, and the second is the role or style in which Performance Management System is deployed.

The PMS aim of use differs between organisations (Meekings, 1995; Atkinson *et al.*, 1997; Bourne *et al.,* 2000; Malmi, 2001; Merchant & Van der Stede, 2007), though Choong, (2013) suggested that there is no consensus regarding the preferred format to use. There are various descriptions of the likely role of performance management use. Simons (1990), Malmi (2001) and Henri (2006), among others, have defined the aims of Performance Management Systems to be: monitoring, attention focusing, and engaging. Here, the monitoring means comparing actual and planned performance. Top management communicates the expected performance levels to the employees, and observe the real level. After that, senior management learns about the accomplishments and failures of employees. When the aim of the performance management system is *monitoring*, control is sought, communication is mainly characterised by vertical communication between managers and subordinates; subordinates are informed of their managers' expectations, held accountable and, in return, they expect to be told whether they have succeeded or failed. When the aim is monitoring, the overall performance information is retained by senior management, and performance reviews are conducted by leaders on a one-to-one basis with managers (Malmi, 2001; Henri, 2006).

The attention focusing style of Performance Management System is characterised by management typically indicating its strategic orientation and communicating it through performance measures. Recommended behaviour is rewarded through key success factors, targets. Performance Management Systems enhance communication within the organisation, and initiate dialogue (Henri, 2006). Employee engagement is a higher order of attention focusing that aims at increasing the involvement of employees through activities such as participation in the design and use of performance measures and encouraging a conversation where they can provide feedback, which could lead to a continuous exchange of information between employees at different organisational levels.

Performance Management System communication can be described by four attributes such as First, type of media employed in reporting performance data: meetings or reporting form. *Meetings or workshops* (Meekings, 1995; Bourne *et al.*, 2000) are popular due to their spontaneity in the delivery of the message and the speed of feedback. Meetings could be formal or informal; typically, SMEs have simple management structures (Garengo & Biazzo, 2012). The size of the audience attending a meeting also differs; it could include only two participants, a *one-to-one* meeting, or several participants in executive boards; Furthermore, the number could contain employees from departments. The structure of meetings involves various components, such as the status of the performance in comparison to previously set targets, lessons learnt, reasons for poor performance and discussion of proposed plans for future action (Alsada, 2010).

Written media is also used to communicate performance data (Taylor & Taylor, 2014). It can be achieved in different formats, such as standard and electronic reports, and more visual methods. Reports have the benefit of being able to present different data taken from various resources (Nudurupati *et al.*, 2011), delivering reliable and credible data and facilitating easy information access (Taylor & Taylor, 2014). Reports are an excellent communication format as they can reach wider audiences than meetings; however, their disadvantage is the lack of a spontaneous response.

Visual methods can represent data, information and knowledge in a graphic format (Bititci *et al.*, 2015). They include strategy charts and road mapping. Strategy charts illustrate objectives, decisions, and events, and are connected by arrows to show causal relationships. Road mapping, a visual technique that supports strategic planning. Adding visuals to words improves learning by 23% and the transfer of learning by 89%

(Meyer, 1997). Despite the clear advantages of visual methods, there is a real risk of misinterpretation which should be avoided (*Ibid.*).

Second, is the degree of performance data accessibility. Typically, information is either transmitted to stakeholders (push) or accessed by them when it is needed (pull). Accessibility to performance reports could be restricted by hierarchical positions (Ferreira & Otley, 2009; Cocca & Alberti, 2010), or it could be allowed to all stakeholders (Cocca & Alberti, 2010). Some writers have identified a link between free access to information and employee empowerment (Ciuzaite, 2008) and restricted access to "distrust, dissatisfaction and demotivation" among employees (Franco-Santos *et al.,* 2012; 96). This link is simplistic and implicit to this study is the argument that more research should be undertaken before concluding which method is more conducive to the efficient use of Performance Management System. Other factors must be considered, such as the size and nature of the industry, the hierarchical level of employees, employment history and other cultural factors within the organisation.

Third, the frequency of reporting is a part of successful Performance Management System implementation; this could simply be ad-hoc with no regular pattern of transmission, or it could occur at regular intervals. Less efficient performance reporting is when performance results are *rarely* communicated (Cocca & Alberti, 2010), while regular reporting of performance data is considered to be successful. These intervals could be *daily* (Meekings, 2005; Bititci *et al.,* 2014), *weekly* (Meekings, 2005), *monthly* (Meekings, 2005; Dossi & Patelli, 2010), or even *quarterly* (Malmi, 2001). Despite these different options, it is important in some cases to have information shared at the beginning of the implementation process, at close intervals, so that users become connected to the data (Meekings, 2005). The frequency of meetings could vary depending on hierarchical level; for example, the board could have meetings every month, while executive management could have weekly meetings (de Waal & Frijns, 2011). Again, management frequency of intervention varies in different sectors. In stable organisations, change is not anticipated. Thus the frequency of intervals is low. While in dynamic and unstable organisations, shorter intervals are required to allow diligent actions to be taken.

2.4.4. Performance Management System Review

The *review process* relates to the strategic objectives being examined and updated (Bititci *et al.,* 2000; Ittner & Larcker, 2003; Kennerley & Neely 2003). The system

metrics should reflect the revised objectives and priorities, as changes in the environment and organisational needs could cause it to lose effectiveness; hence, it requires review and possible redesign (Bourne *et al.*, 2005). PMSs review is checking the relevance of the performance measures according to the needs of both the organisation and users. In some cases, after careful consideration, and after many performance management periods, the strategic assumptions can be questioned and different strategies implemented. Change in strategies should result in newly designed performance measures, which can then be reviewed to check their validity.

2.5. Culture

Culture simply is the distinctive pattern of thinking, perception and possible behaviour that every person or group has. Hofstede described this pattern of thinking as 'software of the mind' (Hofstede & Hofstede, 2005). Culture is 'the customary beliefs, social forms, and material traits of a racial, religious, or social group'. Culture can be described by acting: to solve a problem (Deal & Kennedy, 1982), or 'glue' that holds together an organisation (Trompenaars, 1993). What distinguishes culture is its common, unique and pervasive nature as it is the ability to differentiate one group from others (Adler and Bartholomew, 1992). It is derived from the environment, unlike the personality of a person, which is partly derived from someone's genes (Hofstede & Hofstede, 2005).

Culture can influence values in change management behaviour (Kirkman et al., 2004), conflict management behaviour (Gabrielidis et al., 1997), reward allocation (Gomez et al., 2000), decision making (Mitchell et al., 2000), leadership behaviour (Chan and Drasgow, 2001), personality (Tafarodi et al., 1999) and work-related emotions (Harpaz et al., 2002).

Culture is pervasive, affecting everything in society, start to influence from the stage of education and continue with him in life. Culture's influence can be felt in values, ideas, beliefs, expectations, patterns of behaviour, communication style, style of management, how life is perceived, and what influences thinking about ourselves and our environment, be it work or leisure (Bahagat, et al., 2012).

Tayeb (1988) has voiced his concerns about national culture measurement drawbacks, such as: First, disentangling organisation's culture and national culture. However, this drawback had been avoided by Hofstede's study as he studied variations in national culture in one organisation. Second, when measuring national culture, little efforts had

been made to investigate the impact of peoples' values and attitudes. Third, most of the national culture frameworks assume homogeneity and unity of one country's national culture, and this could affect the validity of national culture studies. Now, despite these concerns, it should be noted that the strength in national culture frameworks is the fact that most researchers had experienced the difference in values, attitudes, and behaviours of individual members of societies and cultures (Minkov & Hofstede, 2011). Thus, this criticism and concerns, national culture continue to be used in academic research. Moreover, it is observed that new research is progressing in National Culture, and hence it could be advised for new research to analyse the work using newer national culture frameworks.

In the next section, the researcher explains national culture and then presents the findings of the systematic literature review, which had investigated earlier works regarding the influence of national culture on the Performance Management Systems.

2.5.1. Introduction

National culture is the set of common beliefs that distinguish people of one nationality from those of another (Hofstede, 1980). National culture is embedded deeply in everyday life and is relatively impervious to change; it affects the way employees understand their work and the way they expect to be treated. When management practices are inconsistent with these deeply held values, employees are likely to feel disenfranchised and distracted. Thus, it may affect their performance (Newman & Nollen, 1996).

The national culture characteristics have evolved from different sources such as religion, education systems, political systems, and economic development (Inglehart, 2008). The current type of economy, technology and even the physical environment such as climate (Minkov, 2011). Though religion creates different cultural values, the cultural differences between religions are far less influential than the differences between national cultures Minkov (2011). The education and political system have a two-way and complicated relationship with culture, but time is needed to produce massive cultural change, which makes the notion of convergence of national cultures as non-feasible (Minkov, 2011).

2.5.2. National Culture Frameworks

Before the existence of national culture frameworks, it was difficult for researchers to compare national cultures. The development of national culture frameworks offered dimensions with statistical indicators representing various national cultures and enabled comparing any number of national cultures. The researcher has compared the most prominent national culture frameworks: Kluckhohn and Strodtbeck (1961), Hofstede (2001), Hall (1976), Trompenaars (1993), Schwartz (1994) and GLOBE, House, et al., (2004); see Table 2.2. These frameworks have common themes such as the distribution of power/authority, the relationship between groups or individuals, the relationship with the environment, use of time. The researcher has laid out the differences between the six frameworks in **Appendix A**.

2.5.3. National Culture Models

National culture models offer templates for comparing differences between different national cultures. The different models unbundle various national cultures to several variables, thus allowing researchers to break different cultures into various National Culture dimensions, which helps to simplify the comparison process. Some National Culture models use non-numerical national culture dimension (Kluckhohn, & Strodtbeck, 1961; Hall, 1976; Trompenaars & Hampden-Turner, 2012), while other models represent national culture dimensions by numerical values (Hofstede & Hofstede, 2005; House et al., 2004). However, Harrison and McKinnon, 1999 noticed some methodological weaknesses in the dimension systems. Such as treating the dimensions equally important in all nations, ignoring in effect the intensity of cultural norms and values, or assuming 'uniformity' of dimensions. Selecting some values or dimensions and ignoring others lead many studies in the opinion of (Harrison and McKinnon, 1999, p. 502) to failure. Despite these methodological weaknesses, there is a consensus that differences between national cultures exist and these differences have an impact on some managerial practices.

It should be noted that national cultural frameworks had been criticised (Harrison and McKinnon (1999: p 483) for several weaknesses. These methodical weaknesses are the failure to consider the 'totality' of the cultural domain, and the 'tendency not to consider explicitly the differential intensity of cultural norms and values across nations'.

The employed framework tends to view the impact of national culture on the design and use of Performance Management System using several national culture dimensions, unlike what was seen as weakness by Harrison and McKinnon, 1999, in effect reducing the 'totality' problem. The nature of the research aims at determining the impact of different national cultures on the design and use of Performance Management System. Thus, the exploratory character of the research is broad and does not claim to consider 'differential intensity of cultural norms across nations'. As the cost of an in-depth measuring of subcomponents of national culture could be prohibitive.

Table 2.2 Common Themes in National Culture Frameworks

Common Themes	Cultural Modes					
	Kluckhohn/ Strodtbeck (1961)	**Hofstede (2001)**	**Hall (1976)**	**Trompenaars (1993)**	**Schwartz (1994)**	**GLOBE House et al., (2004)**
Distribution of power &authority		**Power Distance**	**Space**	**Achievement Vs. ascription**	**Hierarchy-egalitarianism**	**Power Distance, human orientation**
Emphasis on groups or individuals	**Relationship with people**	**Individualism**		**Individualism Vs. collectivism**	**Conservatism-autonomy**	**Individualism/ collectivism**
Relationship with environment		**Uncertainty Avoidance**		**Relationship with environment**	**Mastery-harmony**	**Uncertainty Avoidance, performance orientation & assertiveness**
Use of time	**Relationship with time**	**Long term vs. short term orientation**	**Time**	**Time perspective**		**Future orientation**
Personal and social control	**Human activities**	**Masculinity-femininity**		**Neutral affective**		**Gender egalitarianism**

Hofstede (1980) offers one of the most significant national culture frameworks. It is the 'most frequently-cited' work on national culture (Jansen et al., 2009). For instance, Chow et al., (1999) hail it as the most widely used and validated in the business management field. Additionally, Hofstede's framework is the most commonly used tool with over 20,000 citations since the 1980s. Among the reasons behind Hofstede's widespread recognition are his pioneering work in the field and the availability of a comprehensive web portal system which provides various tools such as the numeric scoring system for positioning different national cultures and continuous research updating.

Hofstede's framework has been criticised for having simplistic dimension conceptualization of culture, ignoring sub-cultures within one country, time changes on

his findings, the validity of his measures (McSweeney, 2002; Baskerville-Morley, 2005). Despite this criticism, Hofstede's research had influenced subsequent research efforts such as House et al., (2004), and Trompenaars & Hampden-Turner, (2012) as they employed similar themes. Despite the apparent differences between them, they agree on several dimension scores, which support the validity of Hofstede's research. In fact, following models after Hofstede's add value to facilitate the understanding of global management (Steers *et al*., 2009). For simplicity and accessibility, the thesis will adopt Hofstede's national culture framework as the source for national culture scores and definitions. Further, the criticism made against Hofstede framework is unlikely to have an impact on the findings of the research.

2.5.4. Hofstede National Culture Framework

Hofstede's national culture framework is based on differences in values and beliefs in individuals' goals and, thus, guides business by providing empirical explanations between national and work culture. Hofstede uses five empirically identified dimensions to describe national cultures; the first four cultural value dimensions were found in a study of thirty-nine IBM subsidiaries throughout the world. Later research by Hofstede and other collaborators added more national culture dimensions to the original study and introduced a fifth cultural dimension. These values address issues of Power Distance (PD); Uncertainty Avoidance; (UA); individualism/collectivism (IDV); masculinity/femininity (MAS); and Term Orientation (TO).

Power Distance 'expresses the degree to which the less powerful members of a society accept and expect that power is distributed unequally'. Societies characterised with high Power Distance accept unequal distribution of power in return for being granted a place in the community. In low Power Distance cultures, people look for equality and expect the actions of leaders to be justified. Individualism describes a society where individuals are prepared to care for themselves and their immediate associates. On the other hand, collectivist societies are comprised of tightly knit connected members who depend on and loyal to each other. Masculine is a culture, which advocates achievement, assertiveness, and competition, while a feminine culture prefers cooperation, caring and quality of life. High Uncertainty Avoidance cultures are not comfortable with vagueness and uncertainty. Therefore, they tend to use rigid codes of behaviour, while low Uncertainty Avoidance cultures are comfortable with uncertainty and ambiguity. Long-

term orientation cultures take a pragmatic approach towards their actions. They plan for future, and they view change positively. While short-term orientation cultures view changes with scepticism and respect the past and 'time-honoured traditions' (Hofstede, 2016).

2.6. The Influence of Culture on Performance Management Systems

The research objective is to explore the impact of national culture on the design and use Performance Management System. A systematic literature review was undertaken to investigate past contributions. A systematic literature review was chosen to avoid bias and increase rigour in the process. It differs from a traditional literature review in adopting replicable and transparent process (Tranfield *et al*., 2003). In the next section, the researcher reports the findings of the systematic literature review on the influence of national culture on the design and use of Performance Management Systems.

2.6.1. The Influence of National Culture on PMS; Systematic Literature Review

The key words used in the systematic literature review were "national culture" AND "performance management system(s)", "performance measurement system(s)", OR "balanced scorecard", OR "management control system(s)", OR "managerial accounting system(s)". The research criteria included balanced scorecard, management accounting systems and management control system to capture the widest possible scores of publications. The search period was chosen from 1992, which was the date of Kaplan and Norton's publication concerning the balanced scorecard (Kaplan & Norton, 1992) until 2016. Google Scholar and ProQuest search engines were employed to look for journals which had an impact factor of at least two stars according to the classification made by the ABS (2010) in the fields of accountancy, general management, strategic management and operations, technology & management, and management science. Multinational organisations were not included because research showed that in large organisations as the impact of organisational routines and organisation cultures could be more influential than any possible influence of national culture (Merchant & Van der Stede, 2003 and de Waal, 2006). Also, papers which discussed the influence of national culture on purely accounting objectives, such as pay, reward systems, incentives, compensation, budgets, transfer pricing, and papers discussing the influence of national culture on performance only were also excluded.

Therefore, 17 papers remained from 2,510 papers after implementing the exclusion criteria as shown in Table 2.3.

2.6.2. Theoretical Findings of the Systematic Literature

The results of the literature review on the impact of national culture were mostly from management accounting literature (Awasthi et al., 1998; Harrison, 1992, 1993; Ueno & Wu, 1993, Chow et al., 1994, 1996, 1999; Harrison & McKinnon, 1994; Efferin & Hopper, 2007; Li & Tang, 2009; Tsui, 2001, Carmona et al., 2011; Etemadi et al., 2009; Chenhall, 2003 and Harrison et al., 1999). Only two papers were found from a managerial perspective (Mooraj et al., 1999; Peterson et al., 2002). Indicating a need for research to be taken from performance measurement perspective to feel the knowledge gap. Also, the papers argued whether national culture does had any impact at all. Also, the evidence of some papers was based on anecdotal evidence (Mooraj et al., 1999) indicating the need for empirical work.

It could be guessed that the reason behind the scant published articles in management related journals, could be the attention given to performance measurement and multinational organisations, joint ventures, and expatriate managers which were excluded from the systematic literature review criteria.

- There is disagreement whether national culture resulted in a permanent impact on performance measurement, as some agreed, while others did not find conclusive evident national culture's impact (Awasthi et al., 1998; Harrison, 1992; Chow et al., 1994).
- Second, the majority of the empirical papers employed survey-based research methods, which was criticised by (Harrison & McKinnon, 1999) as inefficient in capturing national culture impact on subjects. There is a need to have more qualitative based research to enrich findings of a national culture. Third, most of the reviewed papers were empirical (Table 2.3). However, the researchers have not indicated a specific preference for a research method, and hence different research methods were employed such as behavioural experiments, surveys, ethnography, and mixed methods. Again, the action of comparing different works is difficult because of the different research method employed.
- Most of the papers belong to management accounting dealing with topics such as budget control practices, data manipulation, organisation design and planning

and control and budgetary participation. The few papers which were dealing with the performance management system were few and did not sufficiently answer the research questions.

- Many papers did not provide sufficient details about Performance Management Systems design such as the type of PM measures used. Just, some papers discussed subjective or objective performance measures (Efferin & Hopper, 2007), or long/ short-term impact of measures (Ueno & Wu, 1993).
- The scope of the national culture investigated by researchers mostly covered European, North American, China or Japan. Some regions such as the Middle East were not discussed.
- The number of countries described varied in the reviewed papers. Some concentrated in one country, and describe Performance Management Systems design and from a specific national cultural dimension perspective (Li & Tang, 2009), making the process of comparing Performance Management System practices with other countries difficult.
- Few reviewed papers investigated the impact of national culture on Performance Management System use.

In Table 2.3, the researcher presented a summary of the reviewed papers. The findings of the literature review are summarised in the next section.

2.7. Conclusion of literature review

The research questions are *how does National Culture impact on the design and use of Performance Management Systems?* The findings of the literature review in Table 2.4 demonstrated that reviewed literature does not answer the research questions, for several reasons shown the previous section.

From the above, it can be concluded that the findings of national culture impact on the Performance Management Systems Design and Use are fragmented, but enough to construct an inductive theoretical framework. Therefore, research is needed to close the existing gap of knowledge because previous literature does not answer the 'how' question. In the next section, a theoretical framework will be constructed to evaluate the influence of national culture in different organisations operating in different nations.

Table 2.3 Result of the Systematic Literature Review Paper

Paper	No. of countries under analysis					Contextual factors		The employed Research method									Influence of national culture
	1 Country	2 Countries	3 Countries	4 Countries	Scope of analysis	Size of Organisation	Literature review	Survey	Interviews	Mixed	Ethnography	Action research	Secondary data analysis	Behavioural Experiment	Positive influence	Mixed methods	No influence
Awasthi *et al.*, 1998		√			Students	N.a.								√			√
Harrison, 1993		√			Management	Not specified		√							√		
Harrison, 1992		√			Management	Not specified		√									√
Ueno & Wu, 1993					Management	Large		√							√		
Chow *et al.*, 1996					Management	Large				√					√		
Chow *et al.*, 1994		√			Students	n.a.								√			√
Harrison *et al.*, 1999		√			Management	Not specified		√							√		
Chow *et al.*, 1999			√		Leaders & Management	Large									√		
Efferin & Hopper, 2007	√				Leaders & Management						√				√		
Li & Tang, 2009	√				Leaders & Management							√			√		
Tsui, 2001		√			Management			√							√		
Carmona *et al.*, 2011		√			Students									√	√		
Peterson *et al.*, 2002					Management								√				
Etemadi *et al.*, 2009	√				Management	large		√									
Mooraj *et al.*, 1999					n.a.		√										
Chenhall, 2003					n.a		√										
Harrison & McKinnon, 1994					n.a.		√										

Table 2.4 Systematic Literature Review Findings

	Design		Use	
	High	**Low**	**High**	**Low**
PD	Preferring action PM (Harrison, 1993) Predicting performance targets based on Subjective expectations (Li & Tang, 2003). Low manager collaboration in the Performance Management System design (Efferin & Hopper, 2007) Compromise is used to reach consensus on performance targets Li & Tang, 2003).	Result PM (Harrison, 1993) Short term PM Quantitative PM (Harrison et al., 1994)	Informal communication and coordination (Ueno & Wu, 1993) Superior- subordinate control in meetings (Chow et al., 1994) Emphasis on using PM to assist decision making (Efferin & Hopper, 2007 Performance Measurement is used in communication (Li & Tang, 2009) Performance Management System is used for monitoring and evaluating (Birnberg & Snodgrass, 1988	Formal communication between managers and leaders (Ueno & Wu, 1993) Control using directives in meetings Chow et al., 1994.
IDV	Short term PM (Ueno & Wu, 1993) Low manager involvement in PM design (Harrison, 1993) Employee loyalty matters more than efficiency (Efferin & Hopper, 2007) Use of consensus in decision making among owners (Efferin & Hopper, 2007)	Preference of long-term PM (Ueno & Wu, 1993) Use of subjective resource (Li & Tang, 2003) Imposing target, use of compromise, however, employee participation takes place, but it depends on leaders' wishes (Li & Tang, 2003)	Performance Management System is used to define roles (Birnberg & Snodgrass, 1988) Performance Management System is used for rewards (Birnberg & Snodgrass, 1988)	Performance Management System is used for communication and coordination (Li & Tang, 2003) Restricting access to information (Efferin & Hopper, 2007) Values of trust and loyalty are important in getting appeal to the leaders (Efferin & Hopper, 2007
UA	Tight procedural controls (Chow et al., 1996)		Superior- subordinate Control in meetings (Chow et al., 1996)	
TO	Long term planning, group centred decisions (Harrison et al., 1994)	Quantitative PM Short term PM (Harrison et al., 1994)		

2.8. Designing Theoretical Model

The aim of the research is to investigate the impact of national culture on the design and use of Performance Management Systems. The findings of the systematic literature review were fragmented and insufficient. Thus, empirical research is needed to find out. A theoretical framework to investigate the impact of national culture was built using information from the literature review, and Bititci (2015) as will be shown. The framework aims at investigating the impact of national culture on the design and use of PMS. The impact of national culture is studied in two PMS lifecycle stages; design and use (Figure 2.1).

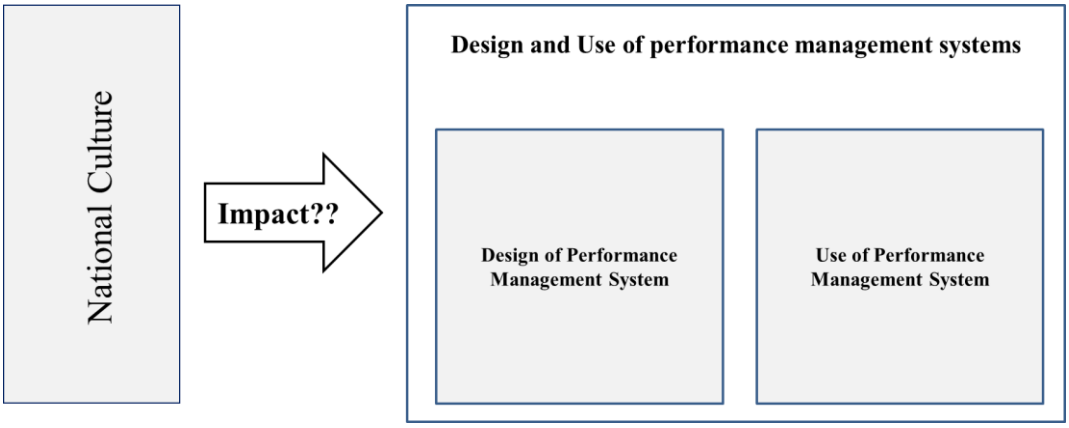


Figure 2.1 Theoretical Framework Building Blocks

It is known that both organisational control and management control bodies of literature recognise that *control* in organisations has two dimensions, rational and cultural. Interestingly, performance management sits at the intersection of these bodies of literature. The theoretical framework is composed of two intersecting rational/technical and cultural controls which are aimed at measuring the maturity of the PMS design and use.

Rational control refers to technical, planned, bureaucratic and structural elements of the organisation and includes practices such as business planning, performance measures and targets, policies and procedures; review, reward and disciplinary routines mechanisms (Tannenbaum, 1968; Child, 1973; Ouchi, 1979; Cardinal, 2001; Cugueró-Escofet & Rosanas, 2013; Anthony, 1965). Meanwhile, cultural controls refer to social

and behavioural aspects of the organisation and includes practices such as shared values, collaborative working, participatory decision-making, and open and honest exchange of information (Tannenbaum, 1968; Child, 1973; Ouchi, 1979; Cardinal et al, 2001; Tessier and Otley, 2013; Chenhall, 2003).

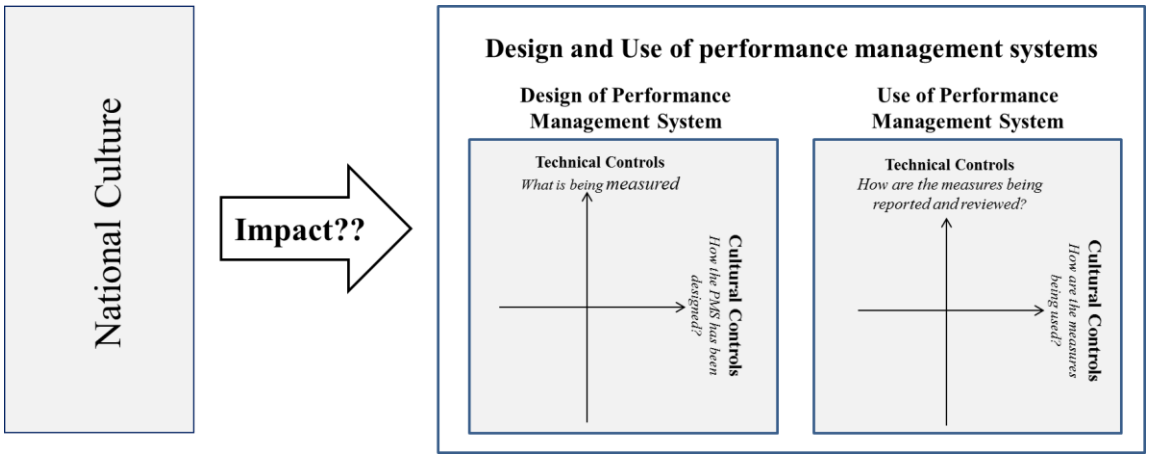


Figure 20.2 Theoretical Framework-NC and PMS design and use

Since the study uses Hofstede's framework as a reference model, then the theoretical model will map national culture dimensions of power distance, uncertainty avoidance, individuality, term orientation and masculinity to the technical and cultural maturity of the design and use of PMS as shown in (Figure 2.3).

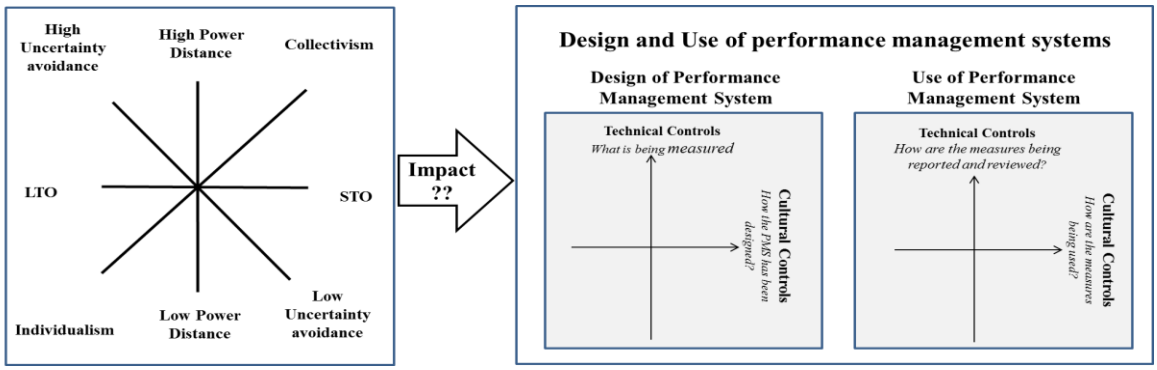


Figure 20.3 Theoretical Framework

2.8.1. Investigating the maturity of PMS design

The impact of national culture on Performance Management System design can be determined by comparing the maturity of technical and cultural controls of PMS design in several national cultures. The maturity of technical/rational dimensions depend on '*what is being measured'*? Table 2.5 explains the way maturity is assessed. Maturity is a continuum ranging from low to high maturity.

Technical maturity of PMS design: At **low maturity**, performance measures are a combination of financial and non-financial measures (Wettstein and Kueng, 2002; Speckbacher et al., 2003; Lawrie and Cobbold, 2004; Meekings, 2005; Van Aken et al., 2005; Agostino and Arnaboldi, 2011). These measures focus on operational and financial aspects such as the cost of production, lead-time or quality time (Hvolby & Thorstenson, 2000), but lack learning and growth measures. **Medium maturity** performance measures emphasise cause and effect relationships between measures and strategic objectives (Tenhunen et al., 2001; Speckbacher et al., 2003; Lawrie and Cobbold, 2004). **High maturity** of technical controls of PMS design is when the performance measures, tend to focus on financial, customer, operational and learning and growth measures.

Cultural maturity of PMS design: Cultural controls of the PMS design aim to answer questions '*who is measuring?'* Table 2.5 explains the way maturity is assessed. Maturity is a continuum from low to high maturity. **Low maturity**, the performance measures design is undertaken either by the top management (Meekings, 1995; Norton and Kaplan, 1996; Bourne et al., 2003; Garengo & Biazzo, 2012) or by managers with little involvement from leaders (Bourne et al., 2003; Assiri, et al., 2006; Agostino & Arnaboldi, 2011; Tung et al., 2011). **Medium maturity** is when there is bi-directional involvement. The proposals could be introduced by leaders or managers working as a team (Agostino & Arnaboldi, 2011; Ahn, 2000; Garengo & Bititci, 2007; Ogbeide & Harrington, 2011). However, the involvement does not extend to employees. A typical example is workshops presided by leaders, with the presence of managers and both parties engaging to reach a suitable performance management system (Ahn, 2001).

High maturity of design involves full collaboration between leaders, managers and employees; it is the opposite to the case of non-participation (low maturity). Leaders could provide the objectives and the strategic direction of the organisation, with engagement from the middle management participating in determining the types of

performance metrics, and the employees could be involved in determining the production targets which they are required to achieve.

Table 2.5 Maturity of PMS Design

Rational Controls		Cultural Controls	
What is being measured?		**Who is designing the Performance Management System?**	
Low	Financial performance measures only Financial, customer and process measures, but lacks L&G measures	Low	Measures are solely designed by leaders or managers. Little cross collaboration between them. Employees are not included the design process
Med.	Balanced set of measures Balanced with causal relationships understood with L&G measures	Med.	Leaders and managers design the measures together, but no involvement of employees.
High	A balanced set of measures, with causal relationships and integrated to reward and recognition systems	High	Leaders, Managers and Employees are working as a team in the performance measures design.

2.8.2. Investigating the maturity of PMS use

The impact of national culture on Performance Management System use can be determined by comparing the maturity of technical and cultural controls of PMS use in several national cultures.

The maturity of technical controls of PMS use depend on the question '*How are the measures being reported and reviewed*?'. Maturity is a continuum ranging from low to high maturity. It depends on the frequency of PMS reviews, access to performance data and the degree of measurement affecting managers' day-to-day decision taking.

Low Maturity, performance data are seldom reported to leaders, and usually performance data are not reviewed or looked at until there is a problem. On **medium Maturity** performance measures reporting frequency is more regular, with the performance reports' quality being enhanced by using visual methods, the accessibility of the performance data includes managers. Meanwhile, **high maturity**, performance data are reported at frequent intervals (Meekings, 2005), and visual display is accessed by managers and employees who work as a team and have regular operational (daily/weekly/monthly) reviews using performance reports and displays. Management teams have regular strategic (monthly/quarterly) reviews using the performance reports and displays (Bititci et al., 2015; see Table 2.6).

The maturity of Cultural Controls of the PMS use depends on the question '*How the measures are being used to manage?* It is a continuum from low to high. **Low**

maturity, measures are primarily focused on monitoring, and controlling actions and performance information are retained within senior management, or it is conducted by the managers on a one to one basis with functional managers. In **medium maturity**, measures and reviews are used to intimidate people into action, as management uses them for creating focus and fostering training and learning (Table 2.6).

Table 2.6 Maturity of PMS Use

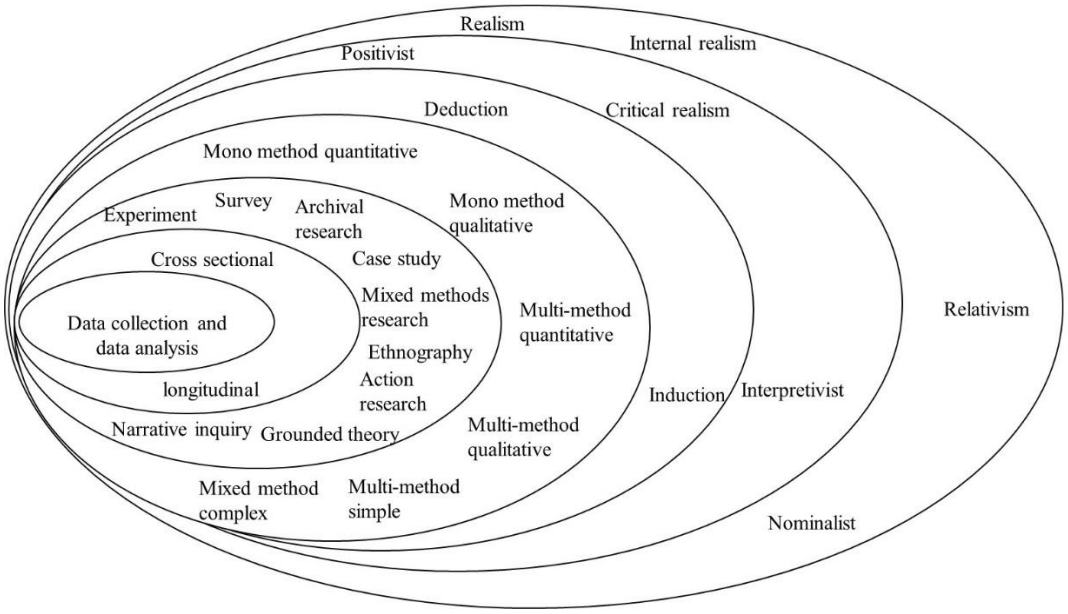
Rational Controls		Cultural Controls	
	How are the measures being reported and reviewed?	How the measures are being used to manage performance	
Low	Measures are reported in reports, but for the leaders' eyes only Measures are not reviewed or looked at until there is a problem	Low	Primarily focused on monitoring and controlling actions Performance information is retained within senior management Performance reviews are conducted by the managers on a one to one basis with functional managers
Med.	Measures are reported at frequent intervals as trends and visual display areas Leaders and managers collaborate as a team by having regular operational reviews using the performance reports and displays Management teams have regular management reviews using the performance reports and displays	Med.	Measures and reviews are used to intimidate people into action Employed by management for creating focus and fostering training and learning Used by employees for decision making, learning and continuous improvement Performance information is openly shared with employees as well others within and out with the organisation Performance reviews are conducted as a collective team
High		High	Measures and reviews are used to engage people towards a common purpose

High maturity cultural control of use, when employees use performance reports for decision making, learning and continuous improvement. Thus they are openly shared with employees as well others within and out with the organisation and performance reviews are conducted as a collective team. In this stage, measures and reviews are used to engage people towards a common purpose (Henri, 2006; Bititci et al., 2015; Cocca & Alberti, 2010; Dossi & Patelli, 2008).

The following chapter will introduce management research methods and explore various research options before focusing on the inductive approach adopted here

Chapter 3 Management Research Methods

The research questions are *how does National Culture impact on the design and use of Performance Management System?* Chapter Three outlines the different choices that are available for management researchers. The present study uses the onion metaphor (Saunders *et al.,* 2012) shown in Figure 3.1 to represent the various components that influence research methods choices, such as philosophical underpinnings, methodology, research approach, and research techniques. The end of the chapter outlines the criteria for judging the quality of the research design.



Adopted from: (Saunders *et al.*, 2012)

Figure 3.1 Research Design Map

3.1. Research Philosophies

Researchers base their research methodologies on different ontological and epistemological assumptions. Usually, social science research projects have different assumptions from scientific projects regarding means to obtain knowledge, and size of samples, and the relationship between the researcher and the observed phenomena. Philosophy tries to clarify the relationship between data and theory, as it informs and advises the manner evidence is required, and methods of its collection and presentation.

Management and business-related research deals with social issues and, as such, involves human interaction, which requires data collection methods that are different to those used in scientific research. Research philosophy advises researchers who are investigating human interaction and provides frameworks that set out the ground rules and guide the researcher in determining how the evidence should be collected, interpreted and analysed. Philosophy provides a framework to acknowledge valid research. For management researchers, philosophy tends to be simplified to a dichotomy: objective and subjective; or: philosophy of science or philosophy of social science (Collis & Hussey, 2011). The objective or scientific, philosophy presumes that there is only one reality, which is independent of the researcher; while in subjective philosophy, reality is socially constructed. These different assumptions can be explained by four factors: ontology, epistemology, methodology, and methods/techniques (Easterby-Smith *et al.*, 2012).

In this section, ontology and epistemology are explained, summarising the current debate and exploring these dimensions, which is followed by a discussion of the assumptions made by this research relating to the chosen research paradigm.

3.2. Ontology

Ontology as defined as one's understanding of the "nature of reality and existence" (Easterby-Smith *et al.*, 2012; p. 17). When conducting research, scholars should draw on different ontological assumptions to improve the quality of research; these assumptions can be simply represented on a continuum, from realism to relativism and nominalism. Realism assumes that truth is singular, that the world is concrete and external and that science can only progress through observations that directly correspond to the phenomena being investigated. Realist scientists assume that the truth of scientific laws is independent of the process of discovery (Easterby-Smith *et al.*, 2012).

Internal realism assumes that there is a single reality, but that it is impossible to observe it directly; rather, it is only possible to gather 'indirect' evidence of the phenomena under investigation. Internal realists accept scientific laws as absolute and independent of further observations. However, relativists believe that scientific laws are not simply there to be discovered, but are created by people (Easterby-Smith *et al.*, 2012).

Relativism suggests that fact depends on the viewpoint of the observer, and there are many 'truths'. Truth can be discovered through discussion and agreement between the main protagonists. An example of a relativist opinion is climate debate, where, despite the same evidence being accepted by all, each side uses particular evidence to support their views, which, to some, are invested with political and economic interests (Easterby-Smith *et al.,* 2012). Nominalists go further still, suggesting that there is no truth that the labels and names, we attach to experiences and events depend on what people have created through language and discourse. The four ontological positions are summarised in Table 3.1

Table 3.1 Summary of Four Different Ontologies

Ontology	Realism	Internal Realism	Relativism	Nominalism
Truth	Single truth	Truth exists but is obscure	There are many 'truths.'	There is no truth
Facts	Facts exist and can be revealed	Facts are concrete, but cannot be accessed directly	Facts depend on the viewpoint of the observed	Facts are all human creations

Adapted from (Easterby-Smith *et al.,* 2012).

3.3. Epistemology

Epistemology, "is about different ways of inquiring into the nature of the physical and social worlds" (Easterby-Smith *et al.,* 2012, p. 21). There are many different epistemologies, but further this research, three are explained in detail: Positivism, Social Constructionism/Interpretivism and Critical Realism. Usually, the debate in epistemology is mostly about concepts of the nature of knowledge and how it relates to truth and justification, sources and scope of knowledge, and criteria for knowledge justification. The following discussion of epistemology highlights different types of epistemologies such as positivism, interpretivism and critical realism.

3.3.1. Positivism

The key assumption made by **positivists** is that the social world exists externally and its properties should be measured through objective methods rather than being inferred subjectively through sensation, reflection and intuition (Easterby-Smith *et al.,* 2012). Positivists assume that experience is objective, testable, and independent of theoretical explanation (Myers, 2013), that reality is fixed, directly measurable and knowable, and that there is only one truth, one external reality. Limiting observer involvement in the

research topic, working on the assumption that the researcher should be unbiased, and abstract from the research process.

The positivist paradigm aims to identify causality through hypothesis testing and deduction. Because they assume the research is bound by fixed and precise boundaries, quantitative tools and techniques are preferred, which emphasise measuring and counting. Positivism is most suitable for testing theories and carrying out deductive research. Subscribing to the positivist paradigm, different researchers should arrive at the same conclusion when undertaking the research in the same conditions; in other words, it ensures validity. Typically, the unit of analysis is reduced to simple, measurable terms, seeking to generalise through statistical probability. Therefore, sampling criteria are vital in selecting representative samples, enabling generalisations to be made comfortably. The positivist paradigm uses large samples, and researchers use the principles of probability and reductionism to break research problems down into their smallest elements (Easterby-Smith *et al.,* 2012). Some positivist research examples include the work of Hofstede in 1984 and 1991 concerning the influence of national cultures on social and work behaviour in IBM (Easterby-Smith *et al.,* 2012).

Researchers who adopt positivists approach may need to use existing theory to develop hypotheses, and further down the research process, they are tested and confirmed, refuted, or more development of theory could result (Saunders *et al.,* 2012). The positivist epistemology can be summarised as involving the following distinct points as shown in Table 3.1.

3.3.2. Interpretivism/constructionism

Interpretivism/constructionism emerged in response to the perceived inadequacy of positivism in meeting the needs of social scientists. Interpretivism is underpinned by the belief that social reality is not objective; it is highly subjective, as it is shaped with the help of our perceptions. Thus, it focuses on exploring the complexity of social phenomena to (or "intending to") obtaining an interpretive understanding (Collis & Hussey, 2014). Constructionism is the acknowledgement that there is an entirely culturally constructed world that constitutes a realm of abstraction beyond perceptual experience, which is a fundamental basis for knowledge creation. Easterby-Smith *et al.* (2012) explained that constructionism was developed by scholars, including Berger & Luckmann, (1971), and Shotter, (1993), who argued that individuals make sense of the

world by sharing experiences with others via the medium of language. Interpretivist philosophers assume that reality is constantly changing and multi-faceted and that the observer

Table 3.2 Summary of Positivist Epistemology Characteristics

Phenomena	Comment
Independence	The observer is independent of the phenomena they are observing.
Value-free and scientific	The choice of the subject and method has nothing to do with the researcher's beliefs and interests.
Deductive	The research is based on previous data and hypotheses, and deductions are made to investigate whether the observations demonstrate the hypothesised law or not
Large samples	Large samples are usually needed to represent an unbiased subset of the population
Empirical operationalisation	Typically, quantitative
Principles of probability	Are employed to suggest how likely a conclusion is statistically occurring.
Reductionism	Problems are broken down into their smallest elements
Generalisations	Sufficient samples should be selected to generalise to a larger population

Should be a part of the reality they are observing. In interpretivist research, there are no predefined dependent and independent variables; rather, the research focuses on the complexity of human sense-making as a situation emerges (Myers, 2013). The aim of an interpretive research is to discover. In addition, because the reality of nature is difficult to measure, the use of qualitative tools and techniques is more appropriate; therefore, the interpretivist paradigm is more suitable for discovering new concepts through inductive research. This kind of the investigation is subjective in nature and thus biased, as the observer examines reality through their lens and perspective. Qualitative research is judged on its freshness, its ability to discover new themes and provide new explanations, the soundness of the research design, and the thoroughness of the data collection and analysis. The research focuses on people, how they feel, think and communicate with each other, verbally or non-verbally (Easterby-Smith *et al.*, 2012). The implication of social constructionism is distinct because the researcher is a part of the research, resulting in human interests being considered as the main driver of science.

3.3.3. Critical realism

Critical realism is "a reconciliatory approach, which recognises, as the rationalist, the existence of a natural order in social events and discourse, but claims that this decree cannot be detected by merely observing a pattern of events." Critical realism is based on observing the influence of the actual phenomena (Walliman, 2011). According to the

critical realist stance, there are three domains of 'ontological positions' (Easterby-Smith *et al.,* 2012, p. 29): real, actual, and empirical. First, 'reality' is constituted by causal powers and mechanisms and cannot be detected by human faculties. Second, 'actuality', comprises events and actions that take place as a result of the 'aforementioned' causal powers and mechanisms; this could be seen or not seen, depending on conditions. Third, the empirical domain comprises the experiences and perceptions people have as a result of, or in response to, the actual phenomena.

Table 3.3 Comparison between Ontologies and Epistemologies

Ontologies	Realism	Internal Realism	Relativism	Nominalism
Epistemology / Methodology	Strong Positivism	Positivism	Constructionism	Strong Constructionism
Aim	Discovery	Exposure	Convergence	Invention
Starting Point	Hypotheses	Propositions	Questions	Critique
Design(s)	Experiment	Large surveys; multi cases	Cases and surveys	Engagement and reflexivity
Data types	Numbers and facts	Numbers and words	Words and numbers	Discourse and experiences
Analysis/ Interpretation	Verification/ Falsification	Correlations and regression	Triangulation and comparison	Sense-making; understanding
Outcomes	Confirmation of theories	Theory testing and generation	Theory generation	New insights and actions

These three levels of domains together make up a structured ontology. These domains correspond approximately to the three ontological positions, respectively, realism, internal realism, and relativism (Easterby-Smith *et al.*, 2012).

3.4. Methodology

The methodology is the "approach and strategy used to conduct research" (Wilson, 2010: p. 3). It is concerned with the overall approach to the research process; this includes theoretical application, collection and data analysis. They can be either deductive or inductive. There is a relationship between particular ontologies, epistemologies and methods. For example, realist and internal realist ontologies lend themselves to positivist epistemologies and research methods, such as survey and experiments, while constructionism is linked to internal realist and relevant ontologies, and the utilisation of research methods such as interviews and archival research (Collis & Hussey, 2014). Table 3.2 shows the methodological implications of different

epistemologies and ontologies, highlighting the relationships between methodology and epistemology. For example, the strong positivist paradigm links to methodological decisions such as designing experiments, using numbers and facts, confirming hypotheses and so on, while interpretivism/constructionism informs methodological decisions, such as the use of words and figures, theory generation and so on.

3.5. Research Approach

The main types of research approaches are deductive and inductive research. A deductive research approach is used when the researcher bases the research on a known domain and proposes a hypothesis, which is then subjected to empirical scrutiny. Then, the researcher concludes whether the hypothesis proposed is confirmed or rejected. On the other hand, an inductive research approach is used when the researcher infers the implication of the findings from the data that has been collected and analysed. Barratt *et al.* (2011) suggest that inductive research is mostly used for theory building and exploratory research when there is a gap in existing theory that does not sufficiently explain an emerging phenomenon, or explanatory research that asks "how" and "why," where the context is usually critical.

3.6. Research Methods and Techniques

Research methods and techniques are, "the instruments and processes for gathering research data, analysing it and drawing conclusions from it." (Easterby-Smith *et al.*, 2012, p. 343). In previous sections, different ontologies and epistemologies have been presented, and it has been noted that some methods are related to ontologies and epistemologies

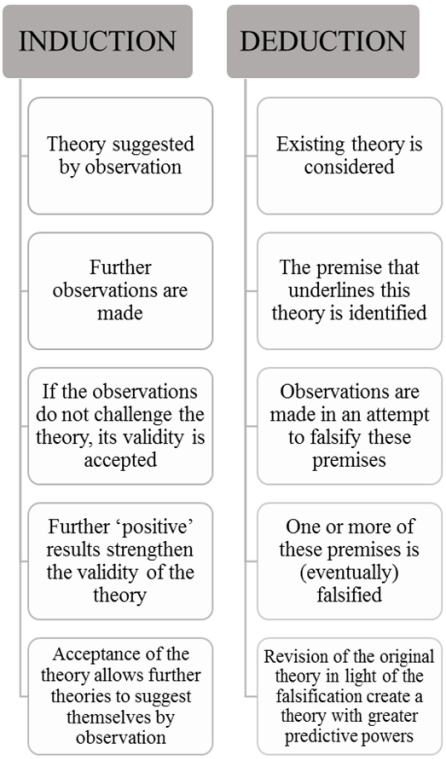


Figure 3.2 Differences Between Induction and Deduction Approaches

The following section provides a brief description of different types of research methods. Rather than explaining all known research methods, only those deemed most commonly used or relevant to this research are discussed. The chosen methods include experimental design, quasi-experimental design, survey research design, action research, case studies, ethnography and grounded theory.

3.6.1. Experimental Designs

Experimental design involves the random allocation of subjects to either a control or experimental groups. Typically, the conditions of the experimental group are reworked (independent variable(s), and the effects that arise due to the alterations are assessed (dependent variable(s), leading the hypotheses to be confirmed, or not. This approach is used in medical or natural science research, although it is sometimes used about organisational behaviour. The advantages of experimental design include allowing other researchers to duplicate its steps, as it has a clear experimental design that is easy to replicate. However, they are not always practical and sometimes subjected to ethical disadvantages, such as the risk of unethical experiments where the participants are harmed by the altered conditions, for instance, harmful drug tests. There are different

types of experimental designs such as classical experiments and quasi-experiments. In management research, classical experiments are rare because randomly assigned variables are hard to obtain; therefore, quasi-experimental methods are used to circumvent the problem of random assignment.

Usually, positivists research designs presume that they come out with true answers, and the researchers start using a hypothesis, then seek to confirm or reject it. The ideal setting for such design is experimental or quasi-experimental. Experiments can be undertaken in a controlled setting which enables the researcher to eliminate certain variables and keep other variables constant. A sample of participants is selected and then randomly assigned to either an experimental group or to the control group. Intervention is usually planned for the experimental group, while the control group is not projected to any change. Random assignment implies that there is no difference between both groups. Thus, resulting in strengthening the internal validity of the research setting. Different types of field experiments include repeated measures design, independent sample design, matched-pairs design, and single subject design. Repeated measures design is when the experiment is repeated under different conditions, while the independent-sample design is when two groups are selected, allowing two impending groups to be compared. Matched-pairs design is a more rigorous approach, which attempts to eliminate other differences between the two groups by matching pairs of employees and allocating one to each other. Finally, a single-subject design is when several subjects are available; however, this makes it difficult to generalise. Nevertheless, despite this disadvantage, findings produced by single-subject research could be useful in providing knowledge about the phenomena under study in that context (Collis & Hussey, 2014).

In a quasi-experimental design, the grouping of the experimental group and the control group is not undertaken using random selection. Usually, participants are grouped using pre-formed groups, which could be based on some other criterion. Certain designs could involve ‘pre-test/post-test comparison design’. Despite quasi-experiments having clarity, transparency and repeatability, the validity of inference is affected (Saunders *et al.*, 2012).

Many research papers, use laboratory or behavioural experiments (Carmona et al., 2011). Despite their advantage of having control, internal validity, measurement precision and replicability (Awasthi et al., 1998). However, laboratory experiments

present non-representative samples and possible instrumentation effects (Carmona et al., 2011). Awasthi et al., 1998 suggested that laboratory experiments occur in an artificial environment, and miss the rich environment where all factors present a unique context and more complicated than laboratory experiments.

3.6.2. Survey Research Design

Surveys are usually associated with a deductive and positivistic research approaches (Saunders *et al.,* 2012). It is usually used to answer research questions such as 'what', 'who', 'how much', and 'how many', thus mainly used for exploratory and descriptive research questions. In a dataset that is assumed to have a regular pattern of human and organisational data, but that 's hard to predict due to a large volume of data and variables, then a *survey* methodology enables multiple factors to be measured simultaneously to allow examination of the potential relationships between variables (Easterby-Smith *et al.,* 2012). Survey is collecting data through asking questions to respondents trying to capture facts, opinions, attitudes, and even behaviours (Collis, *et al.,* 2011). Statistical methods are used to analyse the data and generalise the results to a population. To some significant populations, a random sample is chosen to provide an unbiased subset of the population, and statistical methods are used to test the likelihood that the characteristics of the sample also can be found in the larger population (Collis & Hussey, 2014). Surveys tend to use cross-sectional designs with larger samples to enable multiple factors to be measured simultaneously and potential relationships to be examined. There are three types of surveys: factual, inferential, and exploratory.

Factual surveys are associated with and involve collecting and collating relatively 'factual' data, such as opinion polls and market research from different groups of people (Easterby-Smith, 2012, 43). Thus, the researcher seeks the percentage of people that satisfy the research criteria. Data collection can be conducted by different means, such as postal questionnaires or structured interviews. However, the validity of structured interviews could be affected by factors such as social desirability. Inferential surveys are used in the fields of strategy, marketing or psychology in academic management research; they are aimed at establishing relationships between variables and concepts, regardless of prior assumptions or hypotheses. The process begins by isolating the factors or variables that appear to be involved in a relationship with other concepts, and identifying dependent variables or predictor variables and measuring subject responses. Finally, exploratory surveys can be used to study a new phenomenon and patterns in the

data. Typically, the process begins by isolating the factors that appear to be involved and then determining their causation. Hence, the researcher should be able to identify the dependent and predictor variables. Exploratory surveys use factor analysis and cluster analysis techniques to investigate possible patterns and relationships between data variables and constructs, such as the surveys designed by Hofstede to investigate national culture dimensions (Easterby-Smith *et al.*, 2012).

Survey research activities define the purpose and scope of the survey, depending on the research objectives and questions, and whether the research is descriptive or analytical, cross-sectional or longitudinal. The survey instrument should be constructed with the all the key constructs operationalised. The sampling strategy involves defining the population and deciding on the sampling frame. The survey administration and data collection strategy follows, which includes printing and distributing the survey, gaining access to the respondents, persuading them to respond, and tracking response rates. The collected quantitative data are usually analysed quantitatively using descriptive and inferential statistics. The collected data could suggest possible relationships between different variables.

Surveys have been used in several cultural related types of research such as (Van der Stede, 2003; O'Connor, 1995; de Waal, 2006; Schneider & de Meyer, 1991). Survey questionnaires are subjected to several disadvantages, such as the subjects being selected at random, casting doubt on generalising the results. Respondents to the questionnaire use their perceptions to measure the variables which are not objective.

3.6.3. Archival Research

Sometimes, archival research is about the use of records and documents as a prime source of data (Saunders *et al.*, 2012). The researcher may base his research project on data which was gathered without any direct interaction with organisations or people as research could be undertaken by analysing documents, which could be company publications, records or other resources. The data usually are historical, textual information and its analysis, and some of these organisations which provided this information may even have ceased to exist. So, research which uses only secondary data, which is mainly sourced from documents is called archival research (Collis *et al.*, 2011). This type of the investigation is detached and mainly subjective. In business and management research, previous annual reports provide rich data together with outline plans and priorities for future years (Easterby-Smith *et al.*, 2012). Additionally, the

collected information is constrained by the limited information found in the documents, which could fail to include the complete scope of the research objectives. Other constraints include accessibility, data censorship, or confidentiality issues (Saunders *et al.*, 2012). Awasthi, et al., 1998 suggested using archival methods with other methods while studying the impact of culture to enable researchers more understanding as different may interact in complex ways. Thus external validity is increased.

3.6.4. Mixed Methods

Mixed methods research is informed by both positivist and constructionist epistemologies, and combines qualitative and quantitative methods in the same study. Those in favour of using mixed methods speak of its ability to increase the validity and generalisability of results, and the potential theoretical contribution, while sceptics point to practical limitations, such as researcher competence and possible contradicting paradigms (Easterby-Smith *et al.*, 2012).

The combination of qualitative and quantitative methods in mixed methods research is discussed regarding sequencing and dominance. Sequencing refers to which method is pursued first, while the dominance, refers to which methods would be more significant regarding resources, and time (Easterby-Smith *et al.*, 2012). Mixed methods had been advocated by Awasthi *et al*., (1998) to improve the external validity of the findings.

3.6.5. Ethnography

Ethnography means "nation writing" (Baker & Foy, 2003, p. 146). It entails observation, yet it is not a mere outside observation; rather, the researcher becomes immersed in the setting and becomes part of the group under study, to understand the meaning and significance that individuals assign to their behaviour and that of others. The main purpose of ethnographic research in business is to obtain a deep understanding of people and their behaviour. The difference between simple observation and ethnography is the researcher's involvement with the group they are observing. Simple observation, on the other hand, is detached and 'objective'. Ethnography is more of an open-ended as ethnographers could start not with a research question in mind. Ethnographers are usually subjective, and findings are shaped by their perceptions (Collis *et al.*, 2011).

Some issues influence the role of the researcher in ethnographic research: is the research overt or covert? How much access is awarded? What kind of role is played by the

researcher? What method of data collection and recording was used? Moreover, how was the collected data analysed? (Baker & Foy, 2003). A distinction must also be made between emic and etic perspectives. "'Emic' initially referred to the sounds within a language that can only be distinguished by speakers of that language, and 'etic' refers to features of a language that are easily identified by outsiders, but are largely inaudible to people who speak that language". However, later on emic and etic referred to insider/ outsider perspectives. (Easterby-Smith *et al.,* 2012, p. 51).

The main difference between ethnographic research and case study research is the length of time the researcher is required to spend in the field, and the extent to which they have an obligation to be immersed in the activities of the organisation(s) under study. The advantage of ethnography is the depth of knowledge acquired by the researcher, by the time spent in the organisation. However, ethnography takes longer than any other research method, not only for data collection but also to analyse the data that are collected.

3.6.6. Action Research

Action research aims to solve current practical problems while expanding scientific knowledge (Myers, 2013). Action research is an 'iterative process of inquiry that is designed to develop solutions to real organisation problems through participative and collaborative approach' (Saunders *et al.,* 2012, p. 183). Action research has the distinctive characteristics of combined intervention and research activities by the researcher. Unlike consultancy, the action researcher can change the methodology, or add to it and publish the findings. The action research process starts with a diagnostic stage involving collaborative analysis of the current situation, followed by the therapeutic stage, where changes are introduced, and the effects studied (Myers, 2013). The main advantage of action research is that it helps in making management research relevant to practice. Additionally, action research provides an excellent opportunity for the researcher to gain insights that could be difficult to obtain by other research methods, and the chance to observe the process of change closely (Li & Tang, 2009).

3.6.7. Grounded Theory

Grounded theory can be used to refer to a methodological approach, a method of inquiry and the result of a research process (Saunders et al., 2012). In its purest application, grounded theory presents an attempt at completely unstructured observations, whereby

the researcher starts with no preconceived, planned idea about the aim of the study, but simply gathers data as it emerges. After laborious systematic analysis, a theory could come out of the data obtained (Baker & Foy, 2003). Grounded theory in management research is useful in capturing the complexities of the context in which action unfolds, enabling researchers to understand deeper substantive issues better. Additionally, ethnography, participant observation and discourse analysis are methods that are commonly used alongside grounded theory. Discourse analysis focuses on language, conversation, speech, acts and emotions. Narrative analysis refers to stories, which are often used as explanations; they may reveal more regarding the storytelling than the apparent subject. Therefore, they might contain structures of thought and have implications for roles, actions and expectations. In short, grounded theory is a qualitative research method that seeks to develop a theory that is grounded in data that has been systematically gathered and analysed (Myers, 2013).

Grounded theory was formulated by Glaser & Strauss, (1968) who suggest that the task of research is to develop a theory through a 'comparative method', which involves comparing incidents or situations in different contexts and, subsequently, developing a theory. Glaser & Strauss, (1968) differ from each other in some respects, such as the researcher's presuppositions, and the role of theory. These differences could be related to the philosophical positions of the two authors, as Glaser's ontology is that of a realist, whereas Strauss is more inclined towards a nominalist ontology (Easterby-Smith *et al.,* 2012). The difference between the two authors extends to epistemology, also, as Strauss supports weak positivist assumptions, while Glaser is more inclined toward constructionism. This philosophical distinction influences the analysis of qualitative data. If constructionist assumptions are upheld, then an inductive, intuitive interpretation of data could follow. By contrast, a deductive interpretation is sought by converting qualitative data into quantitative data using content analysis (Baker & Foy, 2003). The use of ground theory in national culture research is rare, due to the costs and the degree of access involved. However, they provide richer contexts and deeper insights than other research methods (Efferin & Hopper, 2007).

3.6.8. Narrative Inquiry

A Narrative is 'a story or a personal account which interprets an event or a sequence of events' (Saunders *et al.,* 2012, p. 183). Narrative inquiry is a constructionist, qualitative research design. Stories from a dominant element of organisational reality and these

stories cannot be overlooked in comprehensive studies. Information that is acquired via stories cannot typically be retrieved using other, more conventional methods. Participant observation could be involved in communicating and constructing stories, or stories could be collected via interviews, by requesting individuals to repeat stories that they heard, or narrate an event. In the narrative enquiry, the position of the narrator and the role of the analyst are critical. Despite their similarity to other qualitative collected data, narratives are classified by their all-inclusive perspectives on organisational behaviour; thus, they are useful in developing social histories of identities. Narrative research could be detached or involved, depending on the researcher's role in encouraging participants to tell new stories that illustrate their feelings (Easterby-Smith *et al.,* 2012). Narrative inquiry may be used in different ways, it may be used with a slight number of participants, or it could be employed with larger samples, where narrative interviews are conducted with or even observations made by participant observations across an organisation (Saunders *et al.,* 2012).

3.7. Case Study Research

A case study is an "empirical inquiry that investigates a contemporary phenomenon (the "case") in depth and within its real-world context, especially when the boundaries between phenomenon and context may not be clearly evident" (Yin, 2014, p. 16). The stated definition stresses the presence of a firm or an organisation and distinguishes case study research from ethnographic research, which does not typically involve participant observation of fieldwork, whereas a case study looks in depth at one, or a small number of organisations, events or individuals more generally, over time. Case study research in business uses empirical evidence from one or more organisations, where an attempt is made to examine the subject matter in context. Multiple sources of evidence are used, although most of the evidence is derived from interviews and documents (Myers, 2013). Case studies provide rich data regarding how groups and individuals behave. Unlike action research method, the researcher in the case study has no control over the context setup. Case studies are usually the preferred method for answering *how* and *why* research questions, when the researcher is not involved in the running of affairs and when the phenomena under investigation are immersed in a real-life context.

The main advantage of a case study is its 'face validity', where a well-written case explains a topic that is well known by many researchers, which gives it credibility. However, most case studies do not have the rigour of national scientific design; their

findings are rarely generalizable, and enormous and diverse volumes of data produced allow different researchers to arrive at different interpretations. These accusations are partly correct; therefore, care should be taken, ensuring there is a clear design before data is collected. Typically, data are collected through direct observation, personal contact and interviews. The data collection period could extend over a significant period, it could be achieved through live observation, and even retrospective accounts of past events could be recorded. Additionally, the unit of analysis could be either individual or specific events within the organisation. Additionally, gaining access to organisations can be difficult, which sometimes prevents researchers from studying interesting organisations.

The philosophical underpinnings of case studies are not always constructionist; they could rely on positivist assumptions or fall somewhere between the two stances. Case studies develop theory inductively through description and analysis of new and emerging phenomena. They differ from grounded theory in that one does not start from the position of ignorance regarding the research question of the research. The researchers bring prior knowledge and understanding of the observations, and so combine induction and deduction in selecting and interpreting data.

The main stages in a case study include selecting the case, preliminary investigations, data collection, data analysis and, finally, writing the report. First, selecting the cases does not follow the same criteria as surveys. However, when investigating a set of circumstances, the choice of cases should adequately reflect the research question. Second, in initial investigations the researcher should be familiar with the context that they are investigating. Collis & Hussey, (2014) have indicated a fear of creating implicit opinions, which might influence the results of the investigation. Therefore, reflecting on philosophical assumptions could guide best practice. Third, in the data collection stage, the researcher should determine how, where and when to collect data. Some of the possible methods include documentary analysis, interviews, questionnaires, and observation. Evidence could be qualitative, quantitative or both.

There are different types of case studies: explanatory/cause, descriptive, exploratory and theory building (Voss *et al.,* 2002). In explanatory case studies, the aim is to investigate the causality between variables, where the researcher tries to determine whether event *x* led to event *y*. The descriptive case study is used in histories and surveys to outline a sequence over time or portray context and so on. The exploratory case study is used to develop a hypothesis and make propositions for further investigation.

3.7.1. Designing Case Study

The main purpose of design is to ensure that the designed case study addresses the intended research objective. Usually components of research design are the case study research objectives and unit of analysis. Research design refers to the general approach to answering the research question. It should contain the direction of data collection, which should fit with the philosophical and practical realities. There are significant overlaps in management research methods, therefore the most appropriate research method, or a mix of methods, should be chosen and justified (Easterby-Smith *et al.*, 2012). The choice of the investigation method should be advantageous and relate to the research problem, regarding: The nature of the research problem under study and the kind of output required, which affects the choice of philosophical paradigm. The amount of time the researcher has dedicated to the research process. The investigator's involvement affects the sample size and type of research approach employed. Figure 3.3 and Table 3.2 summarises some of the choices; researchers must make depending on the nature of the problem and their preferences.

When research is planned, it should include decisions on whether data is being collected to test or to build a theory. A theory is an explanation of observed regularities. Some research projects are based on expanding the middle range or grand theories, while others are based on an "interrogation of the literature", that is, by the illumination of a research issue or problem, where the theory is usually "latent" in the literature (Bryman & Bell, 2011). Resulting in a further argument, regarding whether the theory emanates from existing theories. Alternatively, does theory arise from the process of data collection and the analysis of data associated with a research project? It is important also to note that the researcher is sometimes required to make certain trade-offs between the best research design, their degree of involvement and the resources at their disposal.

One of the important considerations regarding research design is the determination of the **unit of analysis**, which could be individuals, dyads, groups, organisations, or industries. For example, research could explore individual measures of job satisfaction. For dyads, the research would be about exploring two personal interactions, such as supervisor-subordinate relationships. In groups, the unit of analysis is at the group level, such as group effectiveness or cohesiveness. The unit of analysis about organisations concerns an investigation about a company or institution. Finally, industries could also

serve as a unit of analysis if the research is a whole industry, not just a single organisation (Tharenou *et al.,* 2007).

In designing case studies, the researcher should identify the most suitable research design. There are broadly two types of case study design: single and multiple case studies. The single case study is, "an appropriate design under several circumstances, and five single case rationale – that is, having a critical, unusual, common, revelatory, or a longitudinal case (Yin, 2014, p. 51). In multiple case studies, several cases are examined to understand the similarities and differences between cases. The evidence from multiple cases usually adds to the validity.

In longitudinal case study designs, data are collected with an intervening time, typically before and after the application of a cause of an influence, to report on the influence (Saunders *et al.,* 2012). On the other hand, in a cross-sectional design, data is collected at one time. When the aim of the research is to understand the process of change over time, then it is necessary to adopt a longitudinal design (Saunders *et al.,* 2012). Additionally, the decision regarding the timing depends on the nature of the research and its boundaries. Cross-sectional designs have an advantage in the sense that they can describe attributes of significant data about people or organisations, although they are limited by their inability to describe processes over a period or explain the mechanisms or processes underlying change in attributes.

3.7.2. Conducting the Case Study

About the analysis above, a case study was selected to achieve the research objective. The main steps involved in case study research are data collection, data reduction, data display, and data analysis. Usually, a case study protocol is prepared, and it is more than a prepared question list, it contains the procedures and rules that should be followed during the interview. It helps in increasing the reliability of case study research and is planned to allow to communicate to another researcher steps taken to ensure uniform data collection if the interviews are to be repeated by other researchers (Yin, 2014). In the following subsections, more detailed explanations of these steps would be provided.

3.8. Collecting Data for Case Study Research

Different data collection techniques were applied, to a significant part to ensure information validity. Documentation, archival records, interviews, direct observations, participant observation and physical artefacts (Yin, 2014) were used.

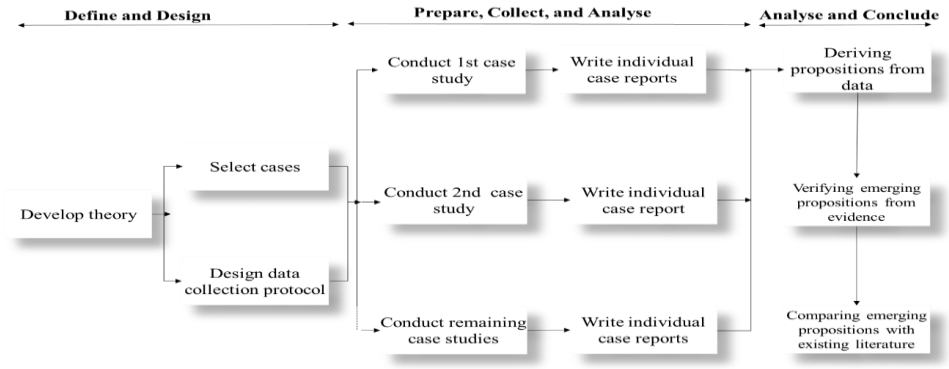


Figure 3.3 Constructionist Case study research framework

Adapted from: (Yin, 2014 ; Eisenhardt, 1989)

Interviews are one of the primary data collection techniques for qualitative research in the fields of business and management. Interviews help the researcher to focus on the subject's world, instead of imposing upon them; the role of the researcher is to listen, encourage, direct and prompt (Myers, 2013).

There are several different types of interviews, which can be broadly categorised into structured, semi-structured and unstructured interviews. Structured interviews have a pre-formulated question, the order of which is strictly regulated, and the time of the interview is in some cases regulated too. In semi-structured interviews, researchers use some pre-formulated questions, but do not have to adhere to them strictly. The researcher can ask new questions, and probe the interviewee's answers, encouraging elaboration and justification. The researcher try to find meanings that the interviewees suggest concerning events and artefacts that they hold to their beliefs and relate to the theme of the research (Easterby-Smith *et al.*, 2012). Additionally, semi-structured interviews give the interviewer the opportunity to try different questions, depending on the responses given, helping the interviewer to extract and understand the objective of the interview. Semi-structured interviews are best suited to collect information in the case study organisations and to enable 'triangulation' of data about other resources (Eisenhardt, 1989), such as observations and documents. Finally, unstructured interviews are where no pre-formulated questions are set, and the interviewees are given total freedom to speak their minds, often with no time limit.

Research on the impact of national culture has used semi-structured (Chow et al., 1999; Zawawi, 2009), structured (Chow et al., 1999) and unstructured (Tsang, 2007) interview methods. The main disadvantage of qualitative case studies is the issue of

generalizability of the research findings. To have an in-depth research means small sample size, which reduces the external validity (Merchant et. al., 1995)

Participant observation, data is collected through the observation of people in situ; finding them where they are, staying with them in some role which. If it is acceptable to them, will allow both close observations of particular parts of their behaviour and in reporting it in ways useful to social science but not harmful to those observed (Myers, 2013). The researcher should be careful not to be led into areas not related to the main research topic; it is also important to maintain records of the events being observed, as careful planning of the observation and record keeping is a key aspect of direct observations (Yin, 2014).

Triangulation as a way of providing enhanced research validity and reliability by deploying more than one research method and tool so that the study findings are not biased, to increase the validity and richness of the data collected and the researchers' confidence in the results (Yin, 2014). Finally, care must be taken not to jump to conclusions without the support of sufficient data, or be unfairly influenced by better-written cases before considering all possibilities. Findings from one form of data should be corroborated by findings from other types of evidence.

3.9. Data Analysis of Case Study Research

3.9.1. Data reduction

It is important to reduce the collected raw data to make it manageable to analyse. Additionally, the data should be transformed, so that it can be understood by the target audience. There are different ways of analysing qualitative data, such as through hermeneutics and coding. When data are collected, it is organised and reduced. The data reduction process involves selecting, simplifying and transforming the data to make it manageable, and controllable. The use of coding is advisable (Miles & Huberman, 1994; Glaser & Strauss, 1968), as the data is at this moment reduced into categories. One of the disadvantages of qualitative research is the accumulation of large amounts of data. Therefore, it is paramount that the researcher reduces the data in a structured and coherent way so that it can be more easily understood and interpreted. Two methods are typically used: documentation and coding, and these would be explained in the upcoming sub-sections.

Several formats can be used to document qualitative data, such as document summary forms, contact summary sheets, sitting in on analysis meetings, and interim site summaries. The researcher should ensure that these forms have coherent formats, and any missing elements should be clear to the researcher to assist completion (Miles & Huberman, 1994). Analysing qualitative data are at the heart of most qualitative research, but analysing evidence in a multiple case study design is different if the design is more qualitative rather than quantitative. First, the data is unstructured and requires different techniques, such as pattern matching, explanation building, time-series analysis, logic models, and cross-case synthesis (Yin, 2104).

Coding refers to associating specific codes or numbers to particular words or phrases. Allowing the researcher to reduce data into categories (Miles & Huberman, 1994). When coding, incidents of phenomena in the data are arranged according to categories and each incident is compared with previous incidents in the same category, enabling the researcher to identify patterns of data, which can inform theoretical developments (Miles & Huberman, 1994).

There are three methods for creating codes; the first is when a provisional list of codes is created before fieldwork being conducted. Predictably, these codes are derived from the conceptual framework of the study, the research questions, research problem, and other variables that are vital to the research. The advantage of this method is that it forces the researcher to link the key components of the study with the data. The second method involves taking a 'grounded' approach, where the researcher does not create codes until the data has been collected so that a more open-minded and context-sensitive approach can be adopted during data analysis (Miles & Huberman, 1994). The third method involves a mixture of the previous methods, where the researcher defines general areas of interest, to which codes can be assigned inductively later on. Axial coding involves putting the data together in new ways, where the objective is to rearrange categories in a rational manner. Finally, selective coding involves selecting a core category and relating it to other categories.

3.9.2. Data Display

Data display goes a step beyond data reduction, by organising information in such a way to facilitate the analysis process and reach a conclusion. The display could take many forms, but it would be "a visual format that presents information systematically, so the user can draw valid conclusions and take needed actions" (Miles & Huberman,

1994). The action of viewing a full data set condensed from the field notes in one place and arranged in a systematic manner helps the researcher to find the answer to the research question. Different forms of listing include event listings, critical incidents chart and matrices (Miles & Huberman, 1994).

The diary is a method which is about maintaining a narrative and timeline of the research process, such as observations, personal reflections, new ideas, events, and so on. It is relevant especially when undertaking action research. Documentation involves creating a detailed report of a site visit. After collecting data on site visits, the first step is to build a comprehensive report. The format of this report can be the same as the structure of the research protocol so that data is organised in a coherent and structured format. The advantage of using one common format is that it is helpful in a comparison across different cases. It is vital that this task be carried out as soon as possible after the site visit(s), to maximise recall and to fill any gaps in the data (Voss *et al.,* 2002). Documentation can take various forms, such as memoranda, minutes of meetings, proposals, annual report emails, web pages and newspapers. The use of documentation includes corroborating information from other sources, making inferences that lead to further investigation, and verifying small details (Yin, 2014). The researcher has referred to companies' web pages to provide a richer picture of cases before and after the visits; this clarifies organisations' activities and vital for good visit preparation. Documents such as emails, web pages, newspapers and corporate documents can provide a richer picture than what could be obtained by fieldwork or interviews alone (Myers, 2013).

3.9.3. Data Analysis

Data analysis is a vital aspect of most research works and by far the most difficult stage of the research process (Eisenhardt, 1989). The objective of qualitative data analysis is to identify, examine, compare, and interpret patterns and themes. It is an iterative process. Analysing qualitative data are at the heart of most qualitative research. Analysing evidence in multiple case study design is different in qualitative and quantitative research designs. First, the data is unstructured and requires different techniques, such as pattern matching, explanation building, time-series analysis, logic models, and cross-case synthesis (Yin, 2104). Qualitative data analysis involves "data collection, data display, data reduction and drawing and verifying conclusions," and these steps take place concurrently (Miles & Huberman, 1994).

Drawing and verifying conclusions, the initial step in the qualitative analysis, requires the careful reading of the interview reports, or the transcripts of interviews if applicable, documents collected, and observation notes. Two types of analysis are usually undertaken here: within-case and cross-case.

The objective of the **within-case analysis** is to gain an understanding of a case and to identify unique patterns that emerge before generalising patterns across cases (Eisenhardt, 1989). The researcher should look for explanations and causalities within the case (Miles & Huberman, 1994). Four methods can be used to understand and look for emerging patterns: an explanatory effect matrix, dynamic case matrices, causal networks, and making and testing predictions. An *explanatory effect matrix* presents a set of forces for change and traces the critical processes and outcomes. A *causal network* displays the most relevant independent and dependent variables in a field study, and the relationships among these variables. The last method is *making predictions and using* data from the case studies, and testing these predictions Miles and Huberman (1994).

The cross - case analysis looks to identify patterns among several cases. Miles and Huberman (1994) suggest several approaches facilitate cross-cases analysis; the first is to order displays. Further displaying the data, by the concept, by the case or by time, could help in comparing and analysing the findings. Non-parametric statistics can also be used to test and explore patterns, even with relatively small sample sizes. The cross-case analysis would help researchers improve internal validity. Propositions are developed from the cross-case results, which is then followed by process of testing the hypotheses (Eisenhardt, 1989).

Different methods can be used to increase the internal validity of a study and the potential to generalise its findings. Among the common methods of cross-case analysis is the construction of a chart containing an array of case study data, and then selecting a category or dimension and looking for similarities and differences within the category. Another method is to select pairs of cases and look for similarities and differences between cases.

3.10. Criteria for Judging the Quality of Research Design

The objective of any good research is to find the right answers to the research questions. Ensuring that the proper research process has been carried out requires constructing research quality criteria (Easterby-Smith *et al.*, 2012; Yin, 2014; Eisenhardt, 1989).

Researchers using positivist designs are primarily concerned with maximising internal validity (systematic errors) and external validity (generalisability). Maximising internal validity is achieved by eliminating all plausible alternative explanations for any differences observed between groups. Achieving through random assignment to control and experimental groups, and ensuring that experiments were undertaken are identical in all steps. Among threats to internal validity include variability in history, maturation, or mortality. External validity refers to the generalizability of the results beyond their immediate application. Access and sampling, and ensuring similar contextual factors, such as size and history, are necessary to ensure improved generalisation. Reliability in constructionist research is about ensuring that when another researcher is having similar observations when repeating the research process. In positivist, research reliability is about ensuring that measures yield the same results when research is repeated in other instances (Easterby-Smith *et al.*, 2012, p. 71).

The quality criteria are used to guide the research methodology choices and to ensure a reliable, consistent and systematic process. The criteria include factors that help to identify as data/research evidence, identify which research findings could be contributing to knowledge and practice. Additionally, it includes notes about internal and external validity, construct validity and reliability (Table 3.3).

3.10.1. Maintaining Validity of the Research

Irrespective of the qualitative method employed, four key issues should be addressed by the researcher (Table 3.4). What the researcher is specifically investigating; how and in what form the observations and interviews are to be recorded; how to maintain accuracy and consistency in recording the interviews; and, finally, how the relationship between the researcher and interviewer would be established and controlled (Baker & Foy, 2003).

To ensure the logical coherence of the research, four tests are commonly used to establish the quality of any empirical social research. If the chosen research method is a

case study, there are four relevant tests, which is explained below: construct validity, internal validity, external validity and reliability.

Table 3.4 Case Study Tactics for Four Design Tests

Tests	Case study tactic	Phase of research in which tactic occurs
Construct validity	Use multiple sources of evidence Establish a chain of evidence Have key informants review draft case study report	Data collection Data collection Composition
Internal Validity	Do pattern matching Do explanation building Address rival explanations Use logic models	Data analysis Data analysis Data analysis
External validity	Use theory in single-case studies Use replication logic multiple-case studies	Data analysis Research design
Reliability	Use case study protocol Develop case study database	Data collection Data collection

Adopted from Yin (2014)

Construct validity is a test that aims to identify "correct operational measures for the concepts being studied" (Yin, 2014, p. 46). Tactics to increase construct validity include using multiple sources of evidence, establishing a chain of evidence, and having the draft case reviewed by knowledgeable researchers.

Internal validity is a test required in explanatory or causal studies, which is "seeking to establish a causal relationship, whereby certain conditions are believed to lead to other conditions, as distinguished from spurious relationships" (Yin, 2014, p. 46). Internal validity can be enhanced via tactics such as data analysis, pattern matching, explanation building, addressing rival explanations and use of logic models.

External validity is a test intended to define "the domain to which a study's findings can be generalised" (Yin, 2014, p. 46). The form of the initial research question(s) can directly influence the strategies used in striving for external validity. The identification of an appropriate theory or theoretical propositions at the research design stage is advised to address the external validity of the research.

Reliability is a test demonstrating that the operations of a study, such as the data collection procedures, can be repeated to produce the same results. The test ensures that

error and bias are minimised. This can be achieved by documenting the procedure that is followed, and case study protocol can help in the documentation process.

3.11. Summary of Chapter 3

The objective of this chapter was to explain different philosophies, epistemologies, research methods. Furthermore, the chapter explained what warrants the choice of a research method and technique, and the epistemological implications of these options. Additionally, the chapter presented criteria to assess the quality of the resultant research. The next chapter uses the information provided in this chapter to justify the methodological choices made by the researcher.

Chapter 4 Research Design

Management research is a diverse and fragmented field with wide-ranging debates due to its applied nature and the broad application of management theory, as it is ranging from the social sciences to management science. This diverse and fragmented research has sparked numerous debates that have resulted in different epistemologies and methods. This Chapter contains choices and justifications made for the research design to answer the research question which is about exploring the impact of national culture on the design and use of Performance Management Systems.

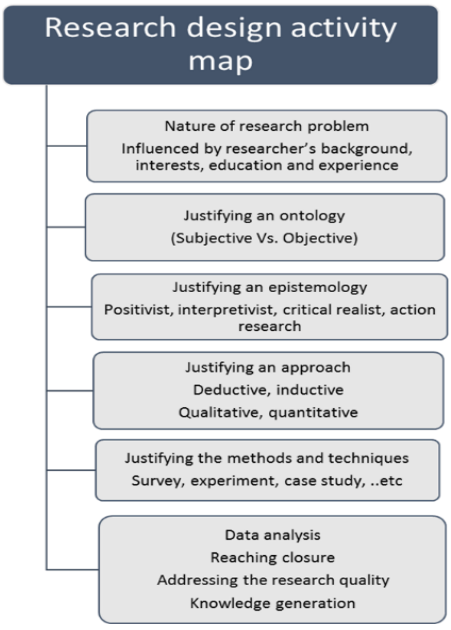


Figure 4.1 Research Design Activity Map

4.1. Research design addressing this study

The research aims to investigate the impact of national culture on the Performance Management Systems Design and Use by asking: *how does National Culture impact on the design and use of Performance Management Systems?* The researcher undertook a literature review and concluded that published literature about the impact of national culture on Performance Management Systems inconsistent and mixed. Therefore there is a need to undertake an exploratory empirical investigation. The theoretical model which was developed in Chapter Two would be used in the empirical process. The

model aimed at exploring the technical and cultural controls of Performance Management Systems in different national culture settings and dimensions which are based on (Hofstede & Hofstede, 2005) framework.

The research design is about providing 'logical sequence' that describe the journey provide answers to the research questions through empirical data (Yin, 2014, 28). In the previous chapter, the researcher explained different ways which could be used in management research. However, this chapter, will specify the methods employed to answering the research questions, and justify the choices made. Figure 4.1 lays out different decisions that are taken in research design. The following sections will contain the research design decisions for the philosophical underpinnings, research's approach, the methods of data collection and analysis.

4.2. Philosophical Underpinnings

The research's goal was to understand how various dimension(s) of national culture impact(s) the design and use of performance measurement systems. A case study based approach is being used to collect data from indigenous SMEs from four diverse cultures.

For this research, the researcher was the sole investigator who interacted with all participant. He was thus more able to realise, and holistic study, all participants constructed realities. The subsequent analysis of information collected formed a tentative reconstruction from the multiple realities that existed at the time the information was collected. The nature of the information gathered is rich and thick implying qualitative data. Since research is exploratory, and not relying on previous theory, then the research approach is inductive. Since the research contextual, complex relying on people understanding and hold different opinions about same things, different contexts or several realities exist, then it is subjective. The research question is a 'how' question; it elucidates meaning. All these given converge to a constructivist, subjective approach. (Eisenhardt, 1989; Eisenhardt & Graebner, 2007; Guba & Lincoln, 1985; Easterby-Smith et al., 2012; Berger & Luckmann, 1971; Lincoln et al., 2011; Creswell,2014).

This had impact the research ontology and epistemology had led to close collaboration between the researcher and the participants while enabling them to tell their stories, so the investigators' findings tend to be shaped by their experiences. As they develop

subjective meanings of their experience and since people have differing backgrounds, these meanings appear in different versions, which place added reasonability on the researcher to understand what is meant rather than treating these meanings literally (Lincoln et al., 2011). The researcher has paid attention to the subjects/participants view of the situation being studied, which implies that the background of the researcher has some influence on their interpretation. The constructionist ontology helped in developing and generating theory and the pattern of meaning, and the paradigm's rigour was achieved through trustworthiness, authenticity, credibility, transferability, dependability, and confirmability (Guba & Lincoln, 1981; Guba & Lincoln, 1985).

4.2.1. Methodology

The most important element of any research design is the methodology which is the strategy for data collection and analysis, as well as methods. Methodology depends on varying factors, such as the choice of ontology and epistemology, the inductive or deductive nature of the research, and the availability of resources. In this research, the given factors were: researcher's ontology and epistemology which were relativist and constructionism respectively, the inductive nature of the research, the limited available resources and the expected difficulty in getting access were given factors. Since the research is about exploring the impact of national culture, the researcher intended to employ interview-based methods, as was suggested by Harrison & McKinnon (1999) who criticised 'survey' methods as it prevents a complete understanding of the national cultural phenomenon. Therefore, using Easterby-Smith, 2012, two by two matrices in (Figure 4.2), the preferable research methods for constructivist and involved researcher were: case study research, ethnography and action research.

Comparing the three research methods in Table 4.1, regarding resources required and the degree of access needed, ethnography was eliminated because it requires broad access and resources. Action research was eliminated too, as it requires high access. Therefore, qualitative case study method was chosen as the research method for the research since it allows interactions between the researcher and subjects, and the needed access and resources of the case study were deemed suitable to the investigator's available resources. Case study helped to answer the research question of *how* Yin (1994). The behaviour of those involved cannot be manipulated unlike organisational experiments; the research could cover contextual conditions as they are relevant to the phenomenon under study. Since the aim of the research was to explore the impact of

different national cultures, then exploratory, multi-case study type was chosen (Yin, 2003).

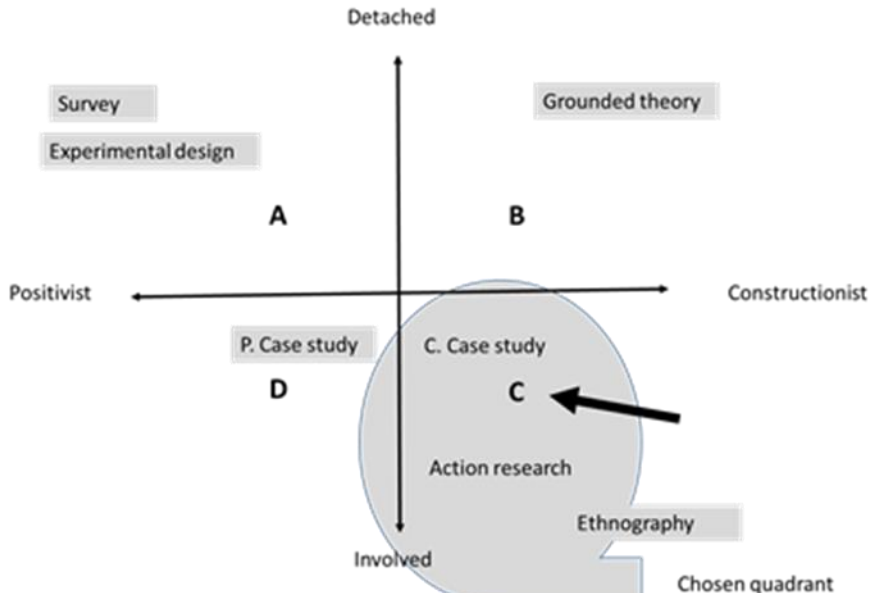


Figure 4.2 Quadrants of the Research Method

Adapted from Easterby-Smith *et al.* (2012)

4.1. Case Research Design

The research design has been developed in accordance to (Eisenhardt, 1989), which is: selecting cases, determining data collection and analysis methods. The resulting propositions were shaped after iterative tabulations of evidence, and comparing with enfolding literature. The latest step of reaching closure step was achieved after marginal improvements of the propositions were small. In the following, these steps will be explained in detail.

Table 4.1 Comparing Ethnography, Action Research, and Case Study Research Methods

Method	Epistemology, degree of engagement	Requires control of behavioural events?	Resources required	Access
Ethnography	Constructionist, engaged	No	Yes, high	Yes
Action research	Constructionist, engaged	No	No	Unlimited access
Case study	Construction/ positivist, engaged	No	Yes	Yes

Adopted from Yin (2003)

4.1.1. Selecting Cases

To explore the impact of national culture, and using the theoretical framework, a multi-case research design was chosen (Eisenhardt, 1989; Stake, 2005). The research questions are: *how does National Culture impact on the design and use of Performance Management System?* The research design aims to investigate the Performance Management Systems by comparing the technical and cultural controls in different national cultures in accordance with the theoretical model developed in Chapter Two. Multi-case study design was employed. The process of selection various national cultures, it was ensured that the compared cases exhibited the least amount of cultural contamination by various contextual conditions. Therefore, all the cases were selected to exhibit the same size, same sector, and lead by indigenous members of the national culture. As large corporations were found to impact the national culture (Merchant & Van der Stede, 2003). Therefore, **small size organisations** were all chosen from one business sector. The selected sector was **manufacturing**, because of the availability of access. The unit of analysis is Performance Management Systems in manufacturing SMEs, who are managed by leaders from the same national culture.

Usually, in qualitative research, small samples are used (Miles et al., 2014), the chosen number of cases was designed in a way striking a balance between enhancing the validity and reducing bias, and at the same time ensured obtaining in-depth information (Voss et al., 2002). The number of investigated national culture was chosen to be **four** national cultures, and from each national culture, **two** cases were examined. Making the total number of eight cases. Thus, the **unit of analysis** of the research is Performance Management Systems in small manufacturing organisations.

Sampling was theoretical (Glaser & Strauss, 1968), by choosing national culture with polar characteristics based on the Power Distance and Uncertainty Avoidance scores, as suggested Hofstede & Hofstede, (2005), who thought that organisation's behaviour differ depending on their PD and UA scores. Thus, the chosen cases were selected with opposing PD and UA scores: UK, China, Italy and Qatar (Table 4.2). Ideally, Germany would have been a better choice than Italy because of its low PD, and high UA, but due to access issues, Italy was chosen, despite having moderate PD. It should be noted that Qatar's score was based on their similarity to the Arab sub-region (Hofstede & Hofstede, 2005; House et al. 1994)

Table 4.002 National Culture Scores for the Selected Cultures

	PD	IDV	MAS	UA	TO
UK	35	**89**	**66**	**35**	**51**
Italy	50	**76**	**70**	**71**	**61**
China	80	**20**	**66**	**30**	**87**
Qatar	80	**38**	**53**	**68**	**30**

(Adapted from Hofstede, 1991; Hofstede & Hofstede, 2005)

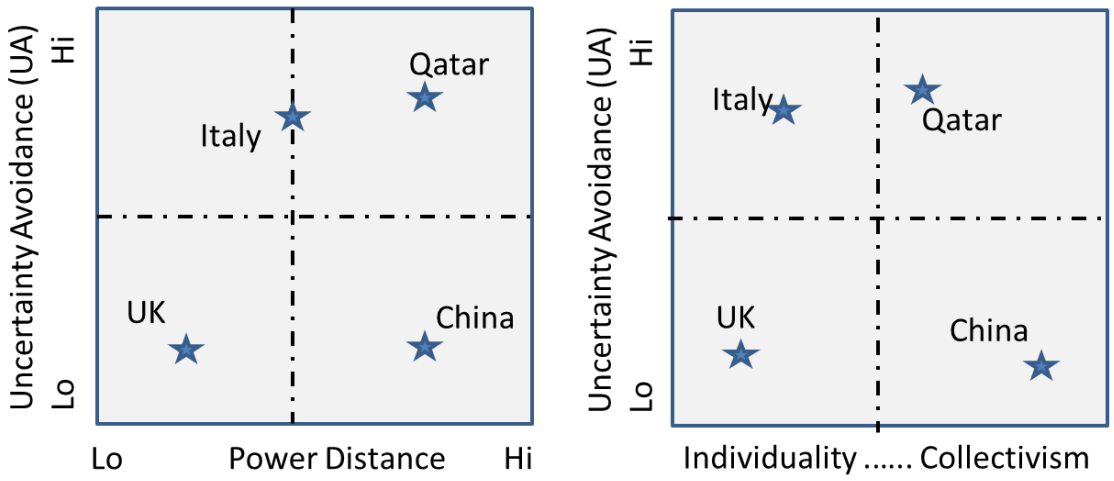


Figure 4.3 Displaying National Culture Scores for the Selected Cases Regarding PD, IDV and UA

Adapted from (Hofstede & Hofstede, 2005)

The next step after determining national cultures was the empirical work to planned to take place, was to choose the cases, and all the cases were selected in accordance with the criteria above. The selected cases are tabulated in Table 4.3.

Table 4.3 Summary of the Cases Activities

	Case	No of Employees	Manufacturing Sector
UK	**UK1**	**75**	**Drinks**
	UK2	**197**	**Home Entertainment**
Italy	**IT1**	**150**	**Furniture**
	IT2	**95**	**Food**
China	**CH1**	**180**	**Industrial Equipment**
	CH2	**55**	**Food**
Qatar	**QA1**	**120**	**Construction Materials**
	QA2	**80**	**Sanitary Materials**

4.1.2. Determining data collection

Research protocol

A research protocol was designed as part of the preparation for the data collection phase. The protocol helped to facilitate the process of collecting data across multiple case studies in a robust, reliable and repeatable way. The protocol contained an overview of the case study project (project objectivity and case study issue), field procedures (presentation of credentials, access to the case sites, general sources of information, and procedural reminders) and the interview questions. They are the specific issues that the case study researcher must keep in mind when collecting data, and the potential sources of information for answering each question). To sum up, data collection was achieved by the case study protocol shown in **Appendix B**.

The protocol helped to increase the reliability of multiple case study research (Yin, 2014). After the pilot case was undertaken, a report of the findings was prepared, and the findings were compared to the research objectives. Then, the information collected was examined about the aims and objective of the research. After some modifications, the final research protocol was developed for the remaining cases.

4.1.3. Data collection methods

Miles and Huberman (1994, p. 25) defined case study as "phenomenon of some sort occurring in a bounded context. The research aimed to investigate the impact of national culture on the Performance Management Systems Design and Use by employing case study's ability to use multiple data sources (Yin, 2014), such as interviews, direct observations, documentations (Eisenhardt, 1989). In the following, the undertaken interview, observation and documentation processes will be explained.

Interviews

The semi-structured format was employed because it allowed the researcher to expand on the answers given to the original questions. A dialogue emerged in several cases which were important to clarify issues. Table 4.4 presents details about the interviews regarding number, the identity of the interviewee, interviews' locations, the language used in the interview. A total of 15 interviews was conducted in the spring of 2013, starting with a pilot interview to identify whether the questions were understood and unambiguous (Stiles and Taylor, 2001). To enhance the reliability of the collected data planned to gather all the data, but it is hard to arrange access in Italy. Thus, he was active in six out of eight cases, ensuring reducing interview questions and style

variations. Because of the difficulty in securing the access agreement in Italy, the interviews were undertaken by Dr Patrizia Garengo. To ensure consistency in undertaking the interviews, Dr Patrizia Garengo used the research's research protocol and her understanding was ensured through several clarifications via Skype calls.

The ideal situation was to have separate interviews with leaders and managers, but it was not possible always, especially when access time was limited. In seven out of eight interviews, managers and leaders were interviewed, except in the UK1. However, this limitation was remedied through discussing the findings with experts who were well aware of the case company. Also, separate meetings with the leaders and managers did not materialise in CH1 and CH2, due to the shortage of access time, however, to complement the collected data, the findings were discussed with experts who confirmed the results of the interview reports. The duration of the interviews ranged from one and a half to three hours, which, together with the desk research and observations, which provided rich data for analysis. In three out of four national cultures, the interviews were undertaken in the native language. Except in China the help of an interpreter was employed.

Table 4.4 Interview Details

Case Company	Interviews				Company Visit	Company Documents	Other Sources of Data
	No of Interviews	No. and kind of Interview Participants					
		Leaders	Managers	External Interviews			
UK1	1	1 (GM)	0	1	No	Yes	Yes
UK2	2	1 (GM)	1 (OM)	1	Yes	Yes	Yes
IT1	16	6 (WM); 3 (SM);	10 (OM, QM, LM, PM	1	Yes	Yes	Yes
IT2	14	5 (GM)	9 (FM, LM, QM, PM, WH)	1	Yes	Yes	Yes
CH1	3	1 (GM)	2 (FM, OM)	1	Yes	Yes	Yes
CH2	4	1 (GM)	3 (FM, MM, SM)	1	Yes	Yes	Yes
QA1	5	1 (GM)	2 (OM, FM)	0	Yes	Yes	Yes
QA2	3	1 (GM)	1 (MM)	0	Yes	Yes	No

GM: FM: Factory Manager, General Manager, MM: Maintenance Manager, OM: Operations Manager, SM: Sales Manager; WM: Warehouse Manager, LM, logistics manager, QM: Quality Manager, PM: Purchase Manage

The interviews were recorded in most cases, and notes were taken throughout the interview process. Interviews, reports were prepared within twenty-four hours from the time interviews were rounded up. The reports combined data from the interviews,

observations and archival documents. The reports were clarified with experts who had detailed knowledge of the organisations and are established in their academic careers such as Dr Patrizia Gargano, and Professor Dan Wang.

Direct observations

In seven out of eight cases, interviews took place in the cases' headquarters. This helped in adding personal observations to the collected data from interviews and thus enriched the findings. The limitation for UK1 was treated through validating the findings with experts. Observations included noting the leaders and managers' meetings, sitting arrangements, the layout of leaders and managers' offices, the leaders' accessibility and so on.

Documentations

The web pages of the investigated cases provided rich information about the organisations, products, markets, size of business, and so on, thus it helped in providing the researcher with sufficient data about the cases, giving him the opportunity to increase the efficiency of the interview times. Some deemed relevant publications and documents were requested from the organisations.

Validity of the interview

The validity of the interviews was achieved through confirming the interview reports with experts who have in-depth information about the case organisations. Moreover, triangulating the different sources of information obtained. Findings obtained from interviews were compared with information obtained from direct observations and documentation.

4.2. Data Analysis

The data analysis was undertaken in accordance to (Eisenhardt, 1989; Miles & Huberman, 1994; Miles *et al.*, 2014). The aim of data analysis was to interpret collected data to provide an answer to the research questions. The data analysis process involved data display and analysis to arrive at conclusions (Miles & Huberman, 1994). The data collected from the case study organisations were analysed individually (within-case analysis), then collectively (cross-case analysis) and finally, propositions were initiated and compared with limited findings from the literature and discussed together in Chapter Six.

The data included in the analysis was collected through interviews, from case organisations' websites, and observations carried out during company visits. The researcher examined the scope and content of the data collected, reflecting on the data while sifting through it and noting any emerging concepts or questions, and discussing the data with colleagues. A tabular format was used to display data. Tables were arranged with a description of Performance Management System processes of design and use on the rows, and in the columns, observations were tabulated.

4.2.1. Data display and coding

Displaying data are meant to illustrate and visualise information and evidence gathered from case studies to draw explanations and predictions towards conclusions. It helps to describe and predict themes and patterns emerging in the research (Miles & Huberman, 1994).

Qualitative data result in obtaining huge amounts of unstructured data. The data was tidied and reduced to help the researcher in interpreting and understanding it. In this study, case study reports **Appendix C** documented the data in a consistent and coherent format so the researcher can extract data across case studies (Miles & Huberman, 1994). Coding is a measure categorising technique which allows condensing the data into categories (Glaser & Strauss, 1968; Miles & Huberman, 1994). There were codes which initially from the theoretical framework and those codes which emerged during the coding process. The original codes are: identifying different types of operating performance measures, methods of performance management system design, ways used in Performance Management System use, and noting the aim of using Performance Management System. While the emerged codes: the types of performance management system implementation, the use of traditional or balanced Performance Management Systems, age and education of leaders and the use of objective or subjective Performance Management Systems in Figure 4.4.

4.2.1. Data analysis

Data analysis was undertaken using Eisenhardt' s (1989) work on building theory from case qualitative case studies. Three steps were used in reaching the final conclusions. The first stage involved within case analysis, the second stage was undertaking cross-case analysis and arriving at the propositions after numerous iterative attempts of analysing data. The third stage involved validating that the emerging propositions with

the data from all the cases. The fourth stage involved comparing propositions with the existing literature. The confidence of findings that contradicting existing evidence was reduced.

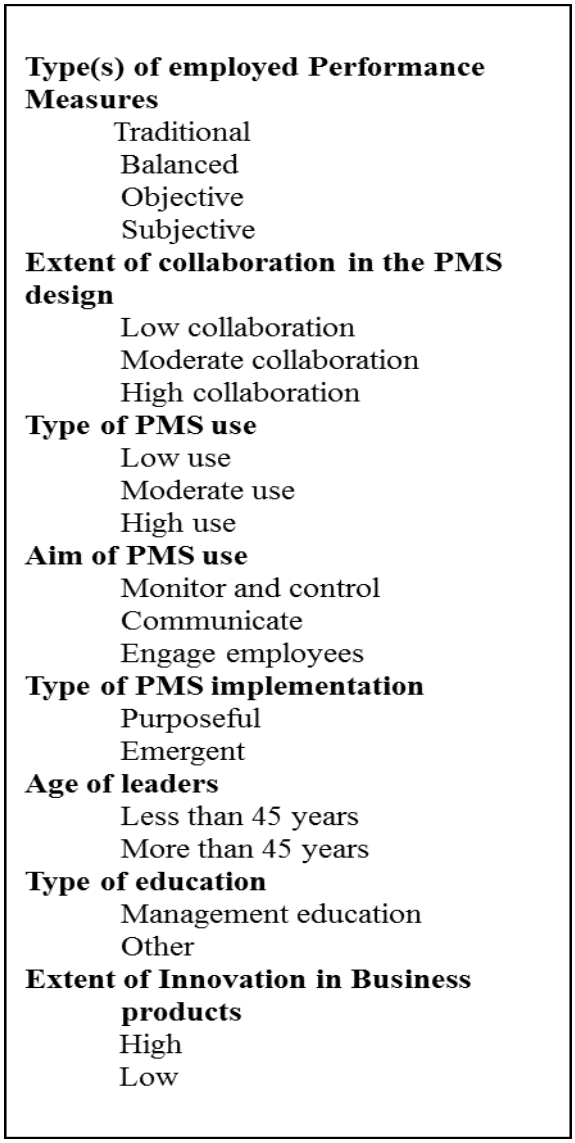


Figure 4.4 List of Codes Used in the Study

After coding and tabulating data, all the data was tabulated in Table 5.9. The table contained the different codes with their corresponding national culture dimensions. The results were arrived at by comparing Performance Management System practices and national culture dimensions obtained from Hofstede and Hofstede (2005). The linking depended on the characteristic of the national cultural dimension. Power Distance was about inequality, which justified for managers to consider themselves different. Then when the practices suggested this different, unequal treatment, then the PMS practice was attributed to PD. Sometimes, the link was made through many observations, where

PM practices occurred in similar national cultural dimension, implying some relationship. For example, in low power distance cultures, the use of traditional performance management system was observed, and in high power distance cultures, the use of the balanced performance management system was observed. Implying some relationship between the use of traditional performance management system and power distance cultures.

Cross-case analysis was undertaken to find the type of relationships that exist between national culture dimension(s) in the different countries and the technical and cultural controls of the used PMS. First, data was analysed for individual cases, and possible relations between national culture dimensions were noted (Table 5.1- 5.8). Then data from all the cases were arranged in one table, and within the case, the analysis was undertaken (Table 5.9). Finally, the cross-case analysis was conducted through undertaking several iterations, using flow/logical diagrams and other visual techniques (Fig 5.1-5.4). Propositions emerged the resulting four figures by grouping similar practices and noting national culture dimensions. Several analysis trials were attempted until the closure point was reachedThe analysis was closer to grounded theory, and only MS software was used. Moreover, the main conclusions were presented and discussed in the major events, such as the PMA Conference held in Denmark in 2014, and the PMA Symposium held at Loch Lomond in 2013, where suggestions from participants contributed to debates and inputs from researchers were noted discussed.

Figure 4.5, presents the journey from the theoretical framework to the final propositions through phases represented by letters from A to F. In A, the theoretical framework developed in Chapter Two. B accounts for the developed criteria from the literature to position case study companies along the axis of the theoretical framework. C represents tables 5.1- 5.8 which is a summary of the with-in case analysis. D represents Table 5.9, where all with-in case analysis are combined in one table. E accounts for the undertaken analysis leading to cross case analysis. Finally, F accounts for the propositions of the research, which arrived at step E.

4.1. Ethics

Codes of ethics are the conventional formats of moral principles. Christians, 2005 had suggested four concepts to direct researchers in their endeavours. These are informed consent, deception, privacy, confidentiality, and accuracy. In compliance with Mill and

Weber tradition, the research subjects were informed about the nature and consequences of the research. Access was allowed, and leaders agreed voluntarily to participate. No known forms of deception were used in the undertaking the research. The participating organisations and person's identity were protected to satisfy against any unwanted exposure. The collected data was ensured to be accurate. No fabrications, fraudulent materials, omissions were allowed.

4.1. Quality of this research

This section evaluates the quality of the present research from the perspective of the validity of findings, appropriateness of the methodological approach and the limitations of the study. Table 4.5 summarises the practices taken to ensure the findings meet the specified criteria for quality.

4.1.1. Construct validity

The construct validity test focuses on the appropriateness of the constructs studied, to answer the research questions. The approach of investigating elements of Performance Management System design and use of the eight cases allowed the findings to be discussed and analysed. Moreover, use of multiple sources of evidence, establishing a chain of proof, have significant informants review draft case study report. Data triangulation was undertaken through different interviews with leaders and managers, data from internet sites, and data provided by the management, and discussing the findings with academics who were quite aware of the existing Performance Management System practices with case organisations.

4.1.1. Internal validity

Internal validity is a test of explanations produced by the data analysis and any causal relationships identified. In this research, internal validity was achieved by ensuring that explanations were supported by evidence from multiple interviews for all case studies. The findings were also discussed with other researchers who have experience with the case study organisations, to validate the explanations. Cause and effect relationships were not identified in this work, but rather perceived influences, associations, and influencing factors were discussed and justified with evidence drawn from the interview reports. The chain of proof from the discussions back though findings, cross-case analysis, within-case analysis, case study reports, and interview data is clear and logically ordered in this thesis.

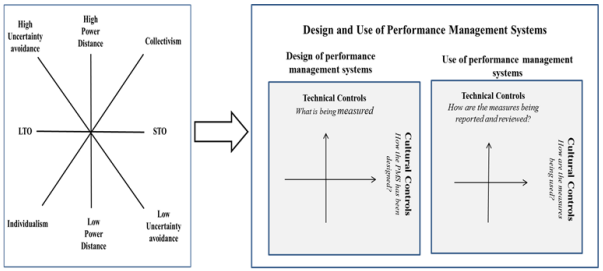


Figure 2.3 Detailed Theoretical Framework

A

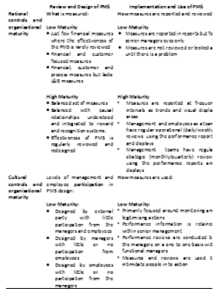


Table 2.5 & 2.6 Maturity of PMS Design & Use

B

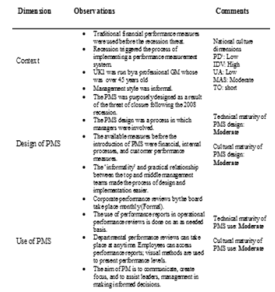


Table 5.1 – 5.8 Summary of XXX Findings

C

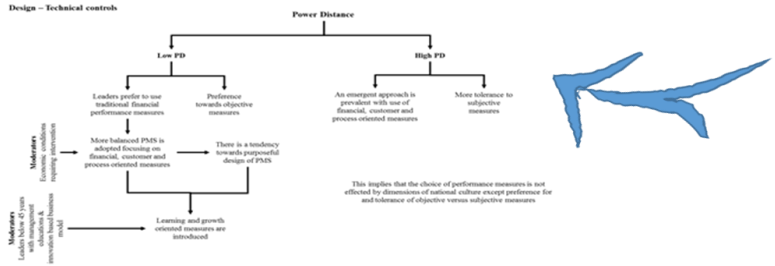


Figure 5.1-5.4 The Technical/cultural controls of PMS Design/Use

F

	National culture	PMS design		PMS use		Type of PMS implementation	Age group and education of leaders
		Technical	Cultural	Technical	Cultural		
UK1	PD: Low IDV: High UA: Low MAS: Mod TO: Mod.	Moderate (traditional, customer, internal process)	Moderate (Collaboration between leaders, managers)	Moderate (need basis use of PMS, vertical and horizontal sharing of PM data)	Moderate (aim of use to monitor, create focus)	Purposeful	Age: 55-60 Education: engineering
UK2		High (traditional, customer, internal process, strategy)	High (Collaboration between leaders, managers, employees)	High (regular day-to-day use of PMS, vertical and horizontal sharing of PM data)	High (aim of use to monitor, create focus and engage employees)	Purposeful	Age: 45-50 Education: engineering and MBA
IT1	PD: Mod IDV: High UA: High MAS: Mod TO: High	Moderate (traditional, customer, internal process)	High (Collaboration between leaders, managers, employees)	Moderate (need basis use of PMS, Departmental vertical and horizontal use of PM data)	High (aim of use, monitor, create focus and engage emp.)	Purposeful	Age: 35-40 Education: management
IT2		High (Traditional, customer, internal process, intangible metrics)	Moderate (Collaboration between leaders, managers)	Low (need basis use of PMS by leaders only, vertical use of PM data)	Low (aim of use to monitor, and control)	Purposeful	Age: 55-60 Education: none
CH1	PD: High IDV: Low UA: Low MAS: Mod TO: High	Moderate (traditional, customer, internal process)	Low (No collaboration between leaders, and managers, employees)	Moderate (Regular use of PMS, vertical and horizontal sharing of PM data)	Moderate (aim of use to monitor, create focus)	Emergent	Age: 55-60 Education: engineering
CH2		Moderate (traditional, customer, internal process)	Low (No collaboration between leaders and managers, employees)	Moderate (Regular use of PMS, vertical and horizontal sharing of PM data)	Moderate (aim of use to monitor, create focus)	Emergent	Age: 55-60 Education: engineering
QA1	PD: High IDV: Low UA: High MAS: Mod TO: Low	Moderate (traditional, customer, internal process)	Moderate (Some collaboration between leaders, managers)	Low (Regular informal use of PMS, vertical sharing of PM data)	Moderate (aim of use to monitor, create focus)	Emergent	Age: 35-40 Education: MBA
QA2		Moderate (traditional, customer, internal process)	Moderate (Some collaboration between leaders, and managers, employees)	Low (Regular informal use of PMS, vertical sharing of PM data)	Low (aim of use to monitor and control)	Emergent	Age: 55-60 Education: none

Table 5.9 Summary of within-case analysis

E

Figure 4.5 Steps to Arrive at the Research Propositions

Table 4.5 Summary of Evaluation of Research Quality Criteria

Tests	Case study aim	Case study tactic	Phase of research in which tactic occurs	Where addressed the thesis
Construct validity	Are the operational measures appropriate for the concepts being studied in place	Use multiple sources of evidence Theoretical model Establish a chain of evidence Have key informants review draft case study report	Data collection Data collection Composition	**Chapters 2,4**
Internal Validity	This research is a test of explanation built from the data analysis and any causal relationship identified	Do pattern matching Do explanation building Address rival explanations Use logic models	Data analysis Data analysis Data analysis	**Chapter 5**
External validity		Use theory in single-case studies Use replication logic multiple-case studies	Data analysis Research design	**Chapter 4, 5**
Reliability	Will similar observations be reached by other observers	Use case study protocol Develop case study database	Data collection Data collection	**Chapters 4, 5**
Contribution to theory	What is the added value to what if	Confirmation of existing theories Extension of theory into new areas	Discussion	**Chapter 6**

4.1.2. External validity

The test considers the context to which the findings from this work are applicable in other contexts. Clearly, evidence from eight manufacturing SMEs is context specific, and the research results may lack generalizability, but due to the similarity of the findings to other researchers' work, they can be considered a strong basis for future action. Some steps were taken to increase the external validity, such as seeking feedback from colleagues who had experience in most of the case organisations. In all the eight case studies, the same conceptual framework and pattern searching in different SMEs carried out through replication logic. The findings were discussed at several conferences, such PMA 2014 and PMA Symposium 2013.

4.1.3. Reliability

The reliability test assesses whether the same results can be produced by replicating the methods used in the current study. One tactic employed to increase reliability was the use of a case study protocol for collecting data, which was developed and applied in this research, as shown in Appendix B. Furthermore, the use of a theoretical framework for analysing the case study data, coupled with the provision of explicit definitions for each construct, enables replication. The structured method for analysing the data, using tables and influence diagrams, provides a chain of evidence for reaching the conclusions of this work, adding to their reliability.

4.1.4. Appropriateness of the methodological approach

This work employed a case study methodology and qualitative methods of data collection, namely semi-structured interviews, secondary documentation, and general observations; and for data analysis, namely narrative analysis and coding. The methods used in this research have proved appropriate for understanding the influence of national culture. In regards to secondary documentation, internet sites provided supporting evidence for contextual factors and factual information about the investigated organisations. Also, the researcher's observations on visiting the sites, as well as having an informal conversation with employees, helped to provide an insight into certain intangible elements of these organisations.

4.1.5. Contribution to knowledge/theory

It is expected that high-quality research would contribute knowledge regarding offering originality and value to the scientific community. This contribution can take many shapes, such as confirmation of existing theories, extending theories into new areas, or applying existing theories in new disciplines. The contribution could be adding new methodologies, or making new uses of existing methodologies, generating hypotheses, generating theory, or generating insights. Lastly, a contribution can be made by disproving an existing theory. On the other hand, if the research is applied, contribution to practice is one of the criteria for high-quality studies; this contribution can take the form of the research being helpful to policy makers or practitioners in decision-making. In this research, the contribution to theory and practice will be evaluated in Chapter Six.

4.2. Summary of Chapter Four

The stated aim of the research was to investigate the impact of national culture on the design and use of Performance Management Systems. In this chapter, the choice of research design, philosophical paradigm and the assumptions underlying the research were justified, as well as the use of case study method. Finally, a framework to test for the quality of this research was outlined.

Chapter 5 Empirical Findings

The aim of the chapter is to present the empirical data collected from each of the eight case studies, and discuss it concerning the theoretical framework developed in Chapter Two to answer the research question of *how does National Culture impact on the design and use of Performance Management Systems?* Sections 5.1 to 5.8 reports on each national culture case study and at the end of the second case from each national culture, a dedicated subsection provides general observations relating to each national culture. Section 5.9 presents a cross-case analysis of these findings, and, in the end, the propositions of this research are presented. It should be noted that national culture dimension of low, high, or indeterminate was based on the score in Table and considering PD< 50 is Low; PD= 50 is Moderate; PD> 50 is High; IDV< 50 is Low; IDV > 50 High, UA< 50 is Low, UA> 50 is High; MAS > 50 is high, TO <50 is short; TO> 50 is Long.

5.1. UK national culture – First Case (UK1)

5.1.1. UK1 Contextual conditions

UK1 is an SME, which was founded in 1988 to offer warehousing capacity to producers, exporters and importers of alcoholic products. Their staff requirement is variable depending on their production schedule, but usually reaching one-hundred and twenty employees at peak times. UK1 has informal organisation culture, with secure communication channels between leaders, managers and staff. When the owners identified a gap in the market, they diversified to offer a co-packing service, and later provided a bottling function. Packing is a labour-intensive job, and the majority of drinks producers outsource this service. Co-packing involves placing the core product inside the special packaging, while bottling is a service that involves mixing drinks to a particular ratio, bottling and packing them at the same time. To control the two separate streams efficiently, the management of UK1 separated the two value streams into two factories. The management team were experienced engineers with more than 45 years of age, with a substantial engineering background. The organisational culture is informal. Table 5.1 presents a summary of the case details.

5.1.2. The national culture influence on Performance Management System design in the UK1

Initially, the organisation was managed using traditional financial performance measures.

> *"initially we did not have performance management system."*
>
> *GM, UK1 interviews, 2013*

However, economic conditions forced the owners to become more competitive, by reducing costs and introducing a more advanced performance management system to communicate this new strategy to their managers and employees. The new performance management system is comprised of financial, customer, and internal operations performance measures. Financial performance measures include reports such as the balance sheet, earnings statement, and cash flow. The designed measures can be divided into two parts: sales and cost of operation. Internal operations performance reports outline metrics such as productivity, and overhead costs. The productivity measure relates to the efficiency of filling operations, while the overhead costs of packaging are measured regarding cost incurred during the packaging processes. The Performance Management System design process benefits from the vast experience of both the board members and the management team. Leaders of UK1 involved managers in the Performance Management System design process. The employed measures are mostly objective. The design process is a consultative process between the leaders and the managers.

UK1 is characterised with the UK's national cultural dimensions of low Power Distance, Low Uncertainty Avoidance, high individualism, and indeterminate term orientation. In the following, the influence of national culture is observed as follows: First, low Power Distance/individualism cultures influence: a) the initial use of Financial Performance Management System. It is thought that due to critical economic conditions, new Performance Management System design, implementation and use was triggered. B) The preference of objective performance measures. Second, due to low Power Distance/Individuality and low Uncertainty Avoidance: a,) collaboration in the Performance Management System design was extended to managers. Third, no influence was observed due to term orientation, and masculinity.

5.1.3. The influence of national culture on Performance Management System use in the UK1

Performance measures are applied at different organisational levels: corporate, operational, and departmental. Corporate performance reviews are undertaken by the board on a monthly basis.

Table 5.1 Summary of UK1 Findings

Dimension	Observations	Comments
Context	• Traditional financial performance measures were used before the recession threat. • Recession triggered the process of implementing a performance measurement system. • UK1 was run by a professional GM, whose age was over 45 years old • Management style was informal.	**National culture dimensions** **PD: Low** **IDV: High** **UA: Low** **MAS: High** **TO: Indeterminate**
Design of Performance Management System	• The Performance Management System was purposely designed because of the threat of closure following the 2008 recession. • The Performance Management System design was a process in which managers were involved. • The available measures before the introduction of Performance Management System were financial, internal processes, and customer performance measures. • The 'informality' and practical relationship between the top and middle management teams made the process of design and implementation easier.	**Technical maturity of Performance Management System design: Moderate** **Cultural maturity of Performance Management System design: Moderate**
Use	• Corporate performance reviews are undertaken by the board on a monthly. • The operational use of performance reports is undertaken on a weekly, and sometimes when the need arises. • Employees can access performance reports; visual methods are used to present performance levels. • The aim of the PM is to communicate, create focus, and to assist leaders, management in making informed decisions	**Technical maturity of Performance Management System uses: Moderate** **Cultural maturity of Performance Management System uses: Moderate**

The participants, who represent shareholders and the general manager (GM), discuss performance reports in formal monthly meetings[3]. The reports are prepared by

[3] Formal meetings which are held in a specified time, attended by invited members, and have their minutes taken.

professional accountants who are in direct contact with the executives. Operational performance reviews are carried out via meetings when needed between the General Manager and his deputies, with no predetermined appointments, and no minutes taken, in the form of on the spot discussions followed by decisions.

"We discuss performance reports, and what should be taken at any time of the day".

GM, UK1 interviews, 2013

Departmental performance reviews are held weekly, and are used to make employees aware of the performance results; the use of visual reporting methods was employed, and the reports can be accessed by all employees. The General Manager answered when asked about the accessibility of employees to information:

"all performance reports are accessible to employees to read and analyse."

GM, UK1 interviews, 2013

Also, employee feedback is encouraged, and two-way communication takes place between managers and staff, leading to information sharing that enhances organisational learning. Leaders in UK1 also use Performance Management System to reduce costs, by communicating to employees the vital need to cut costs.

UK1 is characterised with UK's national cultural dimensions of low Power Distance, Low Uncertainty Avoidance, high individualism, indeterminate term orientation. In the following, the influence of national culture dimensions is observed as follows: First, low Uncertainty Avoidance culture influence: a) the need-based Performance Management System use. B) The open sharing of performance results across to managers and colleagues. Second, low Power Distance/Individuality influence: the aim of measurement which is communication and attention focusing. Third, no influence was observed due to term orientation, and masculinity

5.2. UK national culture – Second Case (UK2)

5.2.1. UK2 Contextual conditions

UK2 is a privately owned, medium-sized enterprise operating in the business-to-consumers sector, and is known for its innovation-based business model and products. They manufacture hi-fi products that consumers consider to be of the highest quality in their particular market niche. UK2 was founded 40 years ago, by an entrepreneur, but overexpansion caused a financial crisis. Shareholders changed the leadership and brought in a new General Manager, who was younger and more educated in management theory. The new management consolidated previous successes and re-defined the product offering. However, some managers resisted the new plans, and eventually they resigned. After the upheavals of implementing new management structure, remaining managers and newly employed managers formed by the top management open and independent relationship. Consequently, the new management continued efforts to restructure and improve the efficiency of operations through the utilisation of an advanced performance management system. Allowing the organisation to rebound and overcome their financial difficulty. Shareholders constitute a professional board that governs operations through monthly meetings. Executive managers gather for a daily meeting, which is preceded by a daily departmental meeting. Moreover, the company has developed highly integrated research, development, and manufacturing processes to align and test their strategy continuously. Table 5.2 presents a summary of the case details.

5.2.2. The influence of national cultures on Performance Management System design in UK2

The performance management system utilised in UK2 was developed about various internal KPIs, related to the different company departments, and measures external KPIs such as customer satisfaction, brand awareness and market share. For example, in the Marketing department, among the performance measures used are web visits, the number of demo bookings, and some demos attended. In the Sales department, the performance measures include some orders, order value, daily orders, and total orders. Among the financial performance measures are cash, net sales, credits, and margin. Similarly, different performance measures were observed in other departments, such as the Service, Manufacturing and purchasing departments.

The process of designing performance measures was collaborative, and the leader invited managers and employees to participate in the design of strategy and performance measures.

> *"In our meetings, we discuss strategy, and discuss measures that help us to reach that strategy, and every manager attends that meeting. Again, in each department, they discuss performance measures and jointly develop it and review it". OM, UK2 interviews, 2013*

UK2 is characterised with UK's national cultural dimensions of low Power Distance, Low Uncertainty Avoidance, high individualism, indeterminate term orientation. From the context surrounding the Performance Management System design, some moderators were observed, namely: being under 45 years old, the management education of leaders and a business model based on innovation. In the following the influence of national culture and moderators is observed as follows: First, low Power Distance/individualism cultures influence: a) the initial use of Financial Performance Management System. It is thought that due to critical economic conditions, new Performance Management System design, implementation and use was triggered. B) The preference of objective performance measures. Second, due to low Power Distance/Individuality, Low Uncertainty Avoidance and moderators: a,) collaboration in the Performance Management System design was extended to managers and employees. Third, low Power Distance and moderators: a) the design of performance measures was enhanced to include the design of learning and growth measures. Fourth, no influence was observed due to: term orientation, and masculinity.

5.2.3. The influence of national culture on Performance Management System use in UK2

Performance reviews are undertaken at different levels. The first level is the board, a group of experienced professionals. They reviewed actual performance versus planned in their monthly meetings, and the General Manager explained performance discrepancies. Operational level performance reviews are regular one-hour meetings held daily, in an open format, attended by all department managers or their representatives. The performance measures reviews are displayed on whiteboards, the results shared horizontally by all managers, and performance indicators are open to

discussion by the meeting attendants. The leader takes a backseat approach in these meetings, allowing free debate and listening to different arguments.

"I take a back seat listening to the managers' remarks and arguments". GM, UK2 interviews, 2013

Table 5.2. Summary of UK2 Findings

Dimension	Observations	Comments
Context	• Expansion has led to financial difficulties. A change of management meant activities were restructured and Performance Management System was implemented. • The relationship between superiors and subordinates is independently built, and open. • The Leader has an MBA degree, and his age is under 45 years old. • UK2 has a business that is based on innovation	**National culture dimensions** **PD: Low** **IDV: High** **UA: Low** **MAS: High** **TO: Indeterminate**
Design of Performance Management System	• The Performance Management System was purposely designed to get the firm out of a negative financial situation. • The design of the Performance Management System was a process in which managers and employees were involved and engaged. • Performance measures are advanced, and comprise of financial, process, manufacturing, marketing and strategy measures. • The measures are regularly reviewed and shared with all employees. • The measures are balanced, with causal relationships to strategy clarified. • There was a team culture throughout the Performance Management System design.	**Technical maturity of Performance Management System design: High** **Cultural maturity of Performance Management System design: High**
Use	• Performance management reviews are held regularly across all departmental levels. • Performance information is used for decision-making, learning, and continuous improvement. • The result of measurement is displayed, and employees are allowed access. • Performance measures are used to engage employees in a common purpose	**Technical maturity of Performance Management System uses: High** **Cultural maturity of Performance Management System uses: High**

Departmental performance reviews precede operational meetings, and employees discuss their KPIs in another one-hour open format. The result of measurement is displayed, and staff are allowed access. The aim of measurement is to allow top management and managers to take informed decisions, communicate organisation objectives, continuous improvement, and engage employees.

UK2 is characterised with UK's national cultural dimensions of low Power Distance, Low Uncertainty Avoidance, high individualism, indeterminate short-term orientation. From the context surrounding the Performance Management System use, some moderators were observed, namely: being under 45 years old, management education of leaders and a business based on innovation. In the following, the influence of national culture dimensions and moderators is observed as follows: First, low Uncertainty Avoidance culture and moderators influence: a) the degree of Performance Management System use which is found to be regular. B) The open sharing of performance results across to managers and colleagues. Second, low Power Distance/Individuality and moderators influence the aim of Performance Management Systems' use to be employee engagement. Third, no influence was observed due to term orientation, and masculinity.

5.3. Italian National Culture- First Case (IT1)

5.3.1. Contextual conditions of IT1

IT1 is an organisation that manufactures furniture and is known for innovative products. However, when it was founded at the end of 1900, by the grandfather of the current owners, it was just a workshop that produced wood products. At the end of the 1990s, the new owner introduced some changes, such as producing innovative products, but retaining the company's core values. IT1 began to produce furniture under the umbrella of an unknown brand, but later became widely known due to its innovative products. Thus, IT1 has witnessed changes in two ways: in its leadership, and in integrating innovative practices within the organisation. Currently, the company has around 170 employees. The leaders of IT1 are young and educated in management. IT1 has an innovation-based business model aimed at creating furniture. The relationship between leadership and managers is based on trust, with a flat hierarchy and open access relationship. Table 5.3 presents a summary of the case details.

5.3.2. The influence of national culture on the Performance Management System design of IT1

There were two levels of Performance Management System design, corporate and operational. On the corporate level, leaders designed financial and customer performance measures. On the other hand, at the operational level, department managers

designed their performance metrics to measure their departments' internal operations processes. The subjectivity of measures could be observed when leaders expressed that they were concerned with 'positive behaviour', and not with just achieving predefined targets.

> *"The IT1's performance management system is not well formalised but aligned with IT1 values. Three main drivers were considered are time to market, IT1 values and quality".*
> *Manger, IT1 interviews, 2013.*

Consequently, the design process of Performance Management System is decentralised to each department, and even employees can participate in the Performance Management System design process.

> *"The design and implementation process was based on a consultative approach: staff were consulted and involved in the definition of the data collected as the data should be used by staff to improve their work. As the employees created the system, they accept it immediately".*
> *Manger, IT1 interviews, 2013.*

IT1 is characterised with Italy's national cultural dimensions of moderate but inclined towards low Power Distance, high Uncertainty Avoidance, high individualism, long-term orientation. From the context surrounding the Performance Management System design, some moderators were observed, namely: being under 45, management education of leaders and innovation based business model. In the following, the influence of national culture and moderators is observed as follows: First, low Power Distance/individualism cultures influence: a) the initial use of Financial Performance Management System. It is thought that due to critical economic conditions, new Performance Management System design, implementation and use was triggered. Second, due to low Power Distance/Individuality, high Uncertainty Avoidance and moderators: a) collaboration in the Performance Management System design was extended to managers and employees, though leaders design their measures and

delegate local Performance Management System to managers who involve their employees in the design process. Third, no influence was observed due to term orientation, and masculinity.

5.3.3. The influence of national culture on the Performance Management System use of IT1

Use of performance measures was observed at two levels, corporate and departmental. Leaders used financial performance results to make informed decisions and monitor critical processes, whereas departments held informal monthly performance reviews, at which performance reports were displayed visually. Performance reviews are decentralised, and horizontal[4] accessibility was rarely observed. Leaders' aims in using performance measures are to monitor critical processes, to guide their decision-making, and to motivate employees.

> *"This aims to require the introduction of a suitable measurement system to manage activities (but not to control employees)". "The system is also promoting the improvement of empowerment and engagement". Manager in IT2, interviews, 2013*

Performance Management System use is regular, but the accessibility of corporate performance reports is restricted to managers, meaning that access to performance reports is still facilitated through vertical communication, which could be due to the strong UA environment.

IT1 is characterised with Italy's national cultural dimensions of moderate but inclined towards low Power Distance, high Uncertainty Avoidance, high individualism, long-term orientation. From the context surrounding the Performance Management System use, some moderators were observed, namely: being under 45, management education of leaders and innovation based business model.

[4] Horizontal means interdepartmental.

In the following the influence of national culture dimensions and moderators is observed as follows: First, high Uncertainty Avoidance cultures: a) the degree of Performance Management System use is found to be regular and systematic. Second, high Uncertainty Avoidance and moderators: a) the open sharing of performance results in departments to managers and employees. Third, low Power Distance/Individuality and moderators influence the aim of Performance Management System to use to be employee engagement. Fourth, no influence was observed due to term orientation, and masculinity.

Table 5.3 Summary of IT1 Findings

Dimension	Observations	Comments
Context	• Low hierarchy and open access leadership style. • The relationship between top management and middle management is based on trust. • The leader has an MBA degree and is under 40 years old, and the organisation is an innovation based business model	**National culture dimensions** **PD: Moderate** **IDV: High** **UA: High** **MAS: High** **TO: Long**
Design of Performance Management System	• Different measures of different levels. • Performance Management System is comprised of financial, customer, internal processes, and quality performance measures. • Autonomous Performance Management System design at the departmental level. • Employees were consulted and involved in the Performance Management System design. • Leadership mostly care about positive behaviour, not on achieving the predefined target.	**Technical maturity of Performance Management System design: Moderate** **Cultural maturity of Performance Management System design: High**
Use	• The aim of measurement is to solve problems and engage employees. • Measures are used monthly • Informal communication. • Lack of horizontal communication of performance management results.	**Technical maturity of Performance Management System uses: Moderate** **Cultural maturity of Performance Management System uses: High**

5.4. Italy National Culture – Second Case (IT2)

5.4.1. Contextual conditions of IT2

IT2 is a long established Italian company that specialises in the manufacture and sale of preserved agricultural products and employs 95 people. The company was founded in

1962, but grew rapidly and tripled its turnover and production volume in less than ten years. In the early '90s, the company began designing a new factory, which became operational in 1994. It adopted quality standard methodologies such as ISO certification and began modernising equipment and buildings. However, the business encountered some complexities in its operation, such as the seasonality of the supply of raw products, which required speed and flexibility in its manufacturing process. The owners and members of their families occupy the majority of the relevant managerial posts in the organisation. The three owners take the major decisions, and rarely the involved, but the relationship between top management and middle management is friendly and based on trust. The organisational culture is friendly and supportive. Table 5.4 presents a summary of the case details.

5.4.2. The influence of national culture on Performance Management System design at

Leaders and managers undertook the design of Performance Management System.

> *"the design and implementation process was based on a consultative approach: all the staff analysed the current Performance Management System, then the managers of each function were involved in the re-design of the system and the definition of the main strategic indicators". IT2 Manager, interviews, 2013*

The observed Performance Management System included financial, customer, and internal process performance measures and intangible perspectives, indicating a high technical maturity of Performance Management System design. Examples of customer-related performance measures include compliance with delivery times, decreased stock shortage, increased market share, increased brand reputation, improved client services, improved quality of sales force and customer relationship, and product range completeness. Examples of financial performance measures include: decreased impact of purchasing costs on net revenues, minimised production costs of finished goods, increased contribution margin, increased overall turnover, and increased turnover from new customers. Examples of internal processes related performance measures include: improved supply reliability, increased production efficiency, greater flexibility of production system, improved stability of production planning, conformity of

manufacturing process, and increased development speed. Examples of intangible performance measures include personnel satisfaction and improved alignment of competencies. Thus, the technical maturity of Performance Management System design in IT2 is high.

IT2 is characterised by Italy's national cultural dimensions of moderate but inclined towards low Power Distance, high Uncertainty Avoidance, high individualism, long-term orientation. In the following, the influence of national culture is observed as follows: First, low Power Distance/individualism cultures influence: a) the initial use of Financial Performance Management System. It is thought that due to critical economic conditions, therefore new Performance Management System design, implementation and use was triggered. Second, due to low Power Distance/Individuality and high Uncertainty Avoidance: a,) collaboration in the Performance Management System design was extended to managers. Third, no influence was observed due to term orientation, and masculinity.

5.4.3. The Influence of national culture on Performance Management System use at IT2

The collection of performance data takes place daily and weekly, and the results are discussed on a weekly and monthly basis, by the top management team. The main theme of the performance reviews is helping leaders understand the determinants of negative results and identify possible solutions. Particular attention is given to processes from the perspective of reducing costs and increasing efficiency.

"Particular attention is given to the process perspective to reduce cost and increase efficiency". IT2 Manager, interviews, 2013

It should be noted that despite the publicly announced company objectives, the Performance Management System at the time of the case study was not supporting the improvement of empowerment and engagement.

"Despite the company's objectives, the Performance Management System is not supporting the improvement of empowerment and engagement".. IT2 manager, interviews, 2013

Table 5.4 Summary of IT2 Findings

Dimension	Observations	Comments
Context	• Have been established more than fifty years. • Traditional performance measurement, but the nature of operations prompted new improvement efforts. • Production characterised by flexibility and speed without compromising on quality. • SME style of Performance Management System uses, where leaders also play the role of managers. • Though decisions are taken only by leaders, there is a friendly organisational culture. • IT2 is run by experienced management, aged over 45.	National culture dimensions PD: Moderate IDV: High UA: High MAS: High LTO: High
Design of Performance Management System	• Leaders and managers were involved in the Performance Management System design, but employees were not. • Different performance measures have been designed, such as financial, sales, quality, internal operations, and intangible performance measures, for instance, improved personnel satisfaction.	Technical maturity of Performance Management System design: **High** Cultural maturity of Performance Management System design: **Moderate**
Use	• Performance measures are used only the leader(s). • The aim of measurement is to support managerial activity and company control • The measures are used weekly and monthly to understand negative results and identify possible solutions • Performance measurement is used to help leaders monitor operations.	Technical maturity of Performance Management System uses: **Low** Cultural maturity of Performance Management System uses: **Low**

From the above IT2 is characterised by Italy's national cultural dimensions of moderate, but inclined towards low Power Distance, high Uncertainty Avoidance, high individualism, long-term orientation. In the following the influence of national culture dimensions: First, high Uncertainty Avoidance cultures: a) the degree of Performance Management System use is found to be regular and systematic. B) Limited sharing of performance results down the management hierarchy. Third, low Power Distance/Individuality behind the aim of measurement of communication and attention

focus, plus monitoring and control. Second, no influence was observed due to: term orientation, and masculinity.

5.5. China National Culture – First Case (CH1)

5.5.1. Contextual conditions of CH1

CH1 was founded in 1958 and specialises in the manufacture and sale of industrial equipment for food manufacturers, such as dumpling makers, stuffing and cutting machines, flour mixing machines, hoisting rapid freezers, walnut cake makers and other machines of different sizes and capacities. The company's primary markets include the domestic market in China, and in sixty-four countries. The company has approximately 180 full-time employees. Approximately one hundred shareholders privately own the company; the shareholders elect the supervisory board, to assess the management team, and to appoint the General Manager. Every year, the oversight board meets with the General Manager to review actual financial performance against planned performance. The result of this review indicates the degree of effectiveness of the executive management of the organisation. Table 5.5 presents a summary of the case details.

5.5.2. The influence of national culture on Performance Management System design in CH1

The Performance Management System at CH1 is comprised of financial, customer, and internal operations performance measures. Leaders initiated performance measurement design by calculating expected sales, looking at sales history, and predicting expected demand. Then, a plan was made to forecast master production; the plan outlined the projected workload for various departments, and managers received their departments' targets, and in turn distributed to the important responsibilities and tasks among their employees. Neither managers nor employees participated in calculating the production target and plan.

Despite their non-involvement in the Performance Management System design process, managers' attitudes were observed to be indifferent. When the leader was asked about whether managers were disappointed by their non-participation, he seemed surprised at the suggestion.

"No". CH1 general manager when I asked him whether his staff asked feel sad or unhappy for not participating in the PMS design process. Interviews, 2013

CH1 is characterised by China's national culture dimensions of high Power Distance, Low Uncertainty Avoidance, low individualism, long-term orientation. In the following the influence of national culture is observed as follows: First, high power/ low individualism influences: a) the new approach in the use of a financial, customer and process-oriented performance measurement. B) More tolerance to subjective measures. Second, High Power Distance/ low Individuality and low Uncertainty Avoidance: a) leaders prefer to design the Performance Management System themselves. Third, no influence was observed due to: term orientation, and masculinity

5.5.3. The influence of national culture on Performance Management System use in CH1

The performance management system is considered an important managerial tool for directing attention and communication, and for informing leaders in their decision-making. To communicate and direct attention, meetings are the preferred tool in CH1 to conduct performance reviews. Different formal meetings are conducted at various levels and for various reasons, such as quality meetings, production meetings, executive meetings, board meetings and so on. Some meetings are held monthly, such as board meetings; others, such as executive meetings, are held weekly, and at the departmental level meetings can be daily.

In performance reviews managers who did not fulfil their targets, are expected to explain reasons behind their failures. The aim of the leaders in this measurement is to be able to take informed decisions regarding pricing, production, purchase plans, and focusing employees toward production policies.

CH1 is characterised with China's national culture dimensions of high Power Distance, Low Uncertainty Avoidance, low individualism, long-term orientation. In the following the influence of national culture is observed as follows: First, low Uncertainty Avoidance and long-term orientation influence: a) the regular and systematic use of performance reports. B) The open sharing of performance information and reports on all levels. Second, High Power Distance/ low Individuality and low Uncertainty

Avoidance: a) the aim of performance measurement is for monitoring and control as well as communications and attention focusing. Third, no influence was observed due to masculinity

Table 5.5 Summary of CH1 Findings

Dimension	Observations	Comments
Context	• The organisation is privately owned by shareholders who are represented by a board, which governs the organisation. • Formal and the paternalistic relationship between management and employees. • CH1 is run by professional management aged over 45.	National culture dimensions PD: High IDV: Low UA: Low MAS: High TO: Long
Design of Performance Management System	• The Performance Management System design was a top-down process. • The measures are financial, customer, and internal process performance measures	Technical maturity of Performance Management System design: **Moderate** Cultural maturity of Performance Management System design: **Low**
Use	• Performance reviews are undertaken through regular meetings at different levels: departmental, corporate and board • Performance measures are used for various purposes, such as to communicate with employees, and for the board to monitor and control operations. • Employees have full access to performance reports.	Technical maturity of Performance Management System uses: **Moderate** Cultural maturity of Performance Management System uses: **Moderate**

5.6. China National Culture – Second Case Company (CH2)

5.6.1. Contextual conditions at CH2

CH2 is a relatively new company, founded in 2008, which specialises in the manufacture of berry-related products, such as confectionery and juices. Naturally growing fruits such as blueberries, lingonberries, blackcurrants, raspberries, and honeysuckle are collected, cleaned, infused with sugar, air-dried and inspected, and then

packaged and distributed to different retail outlets. The culture in CH2 is paternalistic; The organisation is governed by a supervisory board. Table 5.6 presents a summary of the case details.

5.6.2. The influence of national culture on Performance Management System design at CH2

The Performance Management System was designed by the board, based on their forecasts of new sales, and benefitting from their experience of past performance. Leaders communicated measures and targets to the managers; the managers then set objectives for their employees. Both managers and staff are expected to deliver on their given targets; in the case of failure, they are supposed to provide reasons to justify why their goals have been missed.

Financial performance measures include sales, such as balance sheet, statement of earnings, the degree of ROI earned on capital invested, cash flow statements, the cost of energy used in manufacturing, ratio of material to finished product, the volume of production, and quality-related measures. In some cases, subjective measures are used to evaluate employees' performance.

CH2 is characterised by China's national culture dimensions of high Power Distance, Low Uncertainty Avoidance, low individualism, long-term orientation. In the following the influence of national culture is observed as follows: First, high power/ low individualism influences: a) the emergent approach seen in the use of a financial, customer and process-oriented performance measurement. B) More tolerance to subjective measures. Second, High Power Distance/ low Individuality and low Uncertainty Avoidance: a) leaders prefer to design the Performance Management System themselves. Third, no influence was observed due to: term orientation, and masculinity

5.6.3. The influence of national culture on Performance Management System use at CH2

CH2 uses different formal meetings to carry out performance management reviews; these meetings are held at various levels and for various reasons, including quality meetings, production meetings, executive meetings, board meetings and so on. Performance results are distributed through formal meetings, which are used to discuss

and review performance results, featuring relaxed information sharing between different departments.

"We released our annual profits and revenues or the staff (to see) at the end of the year". CH2 GM, interviews, 2013

The measures are used to focus employees, with top management at the centre of decision-making regarding their use.

CH2 is characterised with China's national culture dimensions of high Power Distance, Low Uncertainty Avoidance, low individualism, long-term orientation. In the following the influence of national culture is observed as follows: First, low Uncertainty Avoidance and long-term orientation influence: a) the regular and systematic use of performance reports. B) The open sharing of performance information and reports on all levels. Second, High Power Distance/ low Individuality and low Uncertainty Avoidance: a) the aim of performance measurement is for monitoring and control as well as communications and attention focusing. Third, no influence was observed due to masculinity and long-term orientation.

Table 5.6 Summary of CH2 Findings

Dimension	Observations	Comments
Context	• Governed by a board that represents the shareholders. • A paternalistic relationship exists between management and employees. • CH2 is run by professional management aged over 45	National culture dimensions PD: High IDV: Low UA: Low MAS: High TO: Long
Design of Performance Management System	• Targets are designed by leaders and communicated from the top down. • Subjective measures are sometimes used. • Financial, operations, sales, purchase and quality measures are used.	Technical maturity of Performance Management System design: **Moderate** Cultural maturity of Performance Management System design: **Low**
Use	• Daily, review of performance reports • Regular performance reviews are held at different levels. • The aim of the PM is to communicate strategy to employees and to allow managers to control operations.	Technical maturity of Performance Management System uses: **Moderate** Cultural maturity of PMS uses: **Moderate**

5.7. Qatar National Culture – First Case (QA1)

5.7.1. Contextual conditions of QA1

QA1 is a private company, founded in 2007, that specialises in manufacturing and fitting aluminium frames and doors for buildings. The company is headed by the owner/manager. It is a family business, and shareholders and members of the family have meetings from time to time to discuss financial performance. The total number of employees is 125 persons, who are headed by a 35-year-old owner with an MBA from a Canadian university. Table 5.7 presents a summary of the case details.

5.7.2. The influence of national culture on Performance Management System design at QA1

The performance management system provides the leader with a panoramic picture of the market, and the organisation. The report outlines existing market opportunities, existing market share, and documents efforts made to increase market share through tenders. From the organisational perspectives, the performance metrics measure actual production cost and compare this to planned costs. The accounting department produces traditional financial performance reports, such as profitability, earnings, cash flow and trial balance reports. These provide snapshots of different assets, such as raw materials, work in progress, finished products, and various liabilities and accruals. The sales department produces daily sales reports, which contain details about ongoing projects, highlighting the milestones achieved in sales and fabrication projects. Sales reports include sales projects offered in the local market, and follow-up expected sales opportunities. Finally, manufacturing reports detail the costs incurred in existing projects and deviations from previous estimates and reasons for these deviations. The leader founded the organisation and began by designing a strategy, mission and vision statements. A performance management system was then designed, initially to monitor major processes and to guide informed decisions. The reports are prepared by department managers on a daily basis; sometimes different reports contain similar content, which helps the leader to get more accurate data.

QA1 is characterised by Qatar's national cultural dimensions of high Power Distance, high Uncertainty Avoidance, low individualism, short-term orientation. In the following the influence of national culture is observed as follows: First, high power/ low individualism influences: a) the new approach seen in the use of a financial, customer

and process-oriented performance measurement. B) More tolerance to subjective measures. Second, High Power Distance/ low Individuality and high Uncertainty Avoidance: a) leaders prefer to design the Performance Management System themselves. b) To avoid the resentment of managers, leaders involve some managers to a limited extent in target setting. Third, no influence was observed due to: term orientation, and masculinity.

5.7.3. The influence of national culture on Performance Management System use at QA1

The leader begins their working day by reviewing the reports and discussing these with the managers that have prepared them, and taking any required action. Each manager has a conversation with the leader to discuss their reports and asks questions.

The first thing I do each morning is to look at the various reports and taken the necessary steps. QA1 GM, interviews, 2013

The meetings are not necessarily undertaken face-to-face, and telephone conversations are often used. The aim of Performance Management System is to measure and improve employees' performance through rewarding above-benchmark performance and 'punishing' performance below the benchmark.

One-to-one performance reviews take place between the leader and manager(s), as the owner wishes to keep information protected, and to save face in case of managers receiving a bad performance review.

"No". The financial manager when asked if he is accessible to the sales report. Interviews, 2013

The leader sometimes receives the same information from two sources, hence ensuring its accuracy. The information is not shared between managers, due to the leader instructing against data sharing between departments, and to save face on the part of the manager.

QA1 is characterised with Qatar's national cultural dimensions of high Power Distance, high Uncertainty Avoidance, low individualism, short-term orientation. In the following the influence of national culture is observed as follows: First, high Uncertainty

Avoidance influences: a) the regular and systematic use of performance reports. B) Limited sharing of performance information and reports down the management hierarchy. Second, High Power Distance/ low Individuality and high Uncertainty Avoidance: a) the aim of performance measurement is for monitoring and control. Third, no influence was observed due to long-term orientation masculinity.

Table 5.6 Summary of QA1 Findings

Dimension	Observations	Comments
Context	• A family business, partly owned and managed by a family member. • The leader is under 40 years old and has an MBA degree.	National culture dimensions PD: High IDV: Low UA: High MAS: High TO: Short
Design of Performance Management System	• Design process dominated by top management. • Influential managers are consulted to assist in setting targets. • Financial, customer, and internal processes measures.	Technical maturity of Performance Management System design: Moderate Cultural maturity of Performance Management System design: Moderate
Use	• Performance reports usually refer to the leader, who takes appropriate decisions. • Performance reviews are informal and can take place at any time, depending on need. • The aim of performance measurement is to control, monitor and communicate with employees.	Technical maturity of Performance Management System uses: Moderate Cultural maturity of Performance Management System uses: Moderate

5.8. Qatar National Culture – Second Case (QA2)

5.8.1. Contextual conditions of QA2

QA2 was founded in 1986. The company specialises in manufacturing sanitary napkins, baby diapers, and facial tissues. The company's market niche is low-budget customers; to price lower than their competitors, QA2 has few SKUs[5], cheap packaging and markets their products in budget retail outlets. The company has 80 full-time employees and is headed by the owner and his son. The owner is 55 years old and experienced, but with no formal management education. Table 5.8 presents a summary of the case details.

5.8.2. The influence of national culture on Performance Management System design at QA2

In QA2 the performance management system was an emergent system. The main components of Performance Management System are financial, customer and internal process performance measures. The financial reports are comprised of a report of a trial balance, sales reports, productions report and warehouse reports. All of these reports are made and delivered to the owner's office daily.

The reports are put on the AL haji's table every morning, and when he finishes they are kept under lock and key.

Sales reports are produced by the sales department and manufacturing reports by each factory line manager. The trial balance report provides a snapshot of the organisation's current operations from an accounting perspective. Sales are outlined, as well as the warehouse volume of finished and ongoing work, raw materials, credits and liabilities and so on. The sales report is a large report that compares planned sales to actual sales, and breaks down the sales by geographic location, detailing the total sales for each sale

[5] SKU: stock keeping unit.

point or salesperson. Manufacturing reports detail the total production of each production line, manufacturing wastage and other information, such as a total number of workers, shift times, times when production was halted and consumption of raw materials per finished goods. The Performance Management System was designed by the leader, who uses it to monitor and control operations in the organisation. The leader designed the format of the reports; however, the setting of the targets is up to the department. To ensure the teams are sufficiently motivated to achieve their objectives, the leader involves some managers in setting performance targets, reaching a compromise between them.

> *"All the reports are designed, and production targets are set by my father (manufacturing performance measurements), however, for manufacturing the production targets are reached after bargaining and negotiations with the sales manager". Son of the QA2 owner.*

QA2 is characterised with Qatar's national cultural dimensions of high Power Distance, high Uncertainty Avoidance, low individualism, short-term orientation. In the following the influence of national culture is observed as follows: First, high power/ low individualism influences: a) the emergent approach seen in the use of a financial, customer and process-oriented performance measurement. B) More tolerance to subjective measures. Second, High Power Distance/ low Individuality and high Uncertainty Avoidance: a) leaders prefer to design the Performance Management System themselves. B) To avoid the resentment of managers, leaders involve some managers to a limited extent in target setting. Third, no influence was observed due to: term orientation, and masculinity.

5.8.3. The influence of national culture on Performance Management System use at QA2

The owner receives daily reports which he depends upon to monitor and control operations within the organisation. For example, from the accounting reports, payment of liability can be ordered, or warehouses can be checked and a decision made about reordering a raw material or promoting the sales of a non-moving finished product, and

so on. The leader then contacts the person in charge, usually via phones or a short, unplanned one-to-one meeting, and a decision is made.

Table 5.8 Summary of QA2 Findings

Dimension	Observations	Comments
Context	• Single owner/manager. • QA2 is run by professional management, over 45 years of age. • Emergent performance management system.	National culture dimensions PD: High IDV: Low UA: High MAS: High TO: Short
Design of Performance Management System	• Designed by the leader. • Financial, operational, and sales performance measures. • Resentment from some employees led to their being inviting to consult on setting the production targets.	Technical maturity of Performance Management System design: **Moderate** Cultural maturity of Performance Management System design: **Moderate**
Use	• Informal daily performance reviews • One to one performance reviews. • Performance measurement reports are not accessible to other employees. • The use of subjective sources of information on performance targets could result in disputes over performance review results.	Technical maturity of Performance Management System uses: **Low** Cultural maturity of Performance Management System uses: **Low**

Typically, the role of the manager in charge is as a consultant, and the leader also benefits from other reports that could be reporting on the same thing. This 'triangulation' motivates the managers who prepare performance reports to ensure that they are accurate. In performance reviews, arguments sometimes occur because the leaders have previously used subjective data sources to set production targets, which some employees could perceive to be unacceptable, resulting in an argument in performance measurement reviews.

QA2 is characterised with Qatar's national cultural dimensions of high Power Distance, high Uncertainty Avoidance, low individualism, short-term orientation. In the following the influence of national culture is observed as follows: First, high Uncertainty Avoidance influences: a) the regular and systematic use of performance reports. B) Limited sharing of performance information and reports down the management hierarchy. Second, High Power Distance/ low Individuality and high Uncertainty Avoidance: a) the aim of performance measurement is for monitoring and control. Third, no influence was observed due to long-term orientation masculinity.

Table 5.9 Summary of within-case analysis

National culture	Performance Management System design		Performance Management System use		Type of PMS implementation	Leaders' Age group /education
	Technical	Cultural	Technical	Cultural		
PD: Low IDV: High UA: Low MAS: High TO: Indeterminate.	Moderate (traditional, customer, internal process)	Moderate (Collaboration between leaders, managers)	Moderate (need basis use of Performance Management System, Vertical and horizontal sharing of PM data)	Moderate (aim of use to monitor, create focus)	Purposeful	Age: 55-60 Education: Engineering
	High (traditional, customer, internal process, strategy)	High (Collaboration between leaders, managers, employees)	High (regular day-to-day use of Performance Management System, Vertical and horizontal sharing of PM data)	High (aim of use to monitor, create focus and engage employees)	Purposeful	Age: 45-50 Education: Engineering and MBA
PD: Mod IDV: High UA: High MAS: High TO: High	Moderate (traditional, customer, internal process)	High (Collaboration between leaders, managers, employees)	Moderate (need basis use of Performance Management System, Departmental vertical and horizontal use of PM data)	High (aim of use to monitor, create focus and engage employees)	Purposeful	Age: 35-40 Education: Management
	High (traditional, customer, internal process, intangible metrics)	Moderate (Collaboration between leaders, managers)	Low (need basis use of Performance Management System by leaders only, vertical use of PM data)	Low (aim of use to monitor and control and improve efficiency)	Purposeful	Age: 55-60 Education: none
PD: High IDV: Low UA: Low MAS: High TO: High	Moderate (traditional, customer, internal process)	Low (No collaboration between leaders, and managers, employees)	Moderate (Regular use of Performance Management System, Vertical and horizontal sharing of PM data)	Moderate (aim of use to monitor, create focus)	Emergent	Age: 55-60 Education: Engineering
	Moderate (traditional, customer, internal process)	Low (No collaboration between leaders and managers, employees)	Moderate (Regular use of Performance Management System, Vertical and horizontal sharing of PM data)	Moderate (aim of use to monitor, create focus)	Emergent	Age: 55-60 Education: Engineering
PD: High IDV: Low UA: High MAS: High TO: Low	Moderate (traditional, customer, internal process)	Moderate (Some collaboration between leaders, managers)	Low (Regular informal use of Performance Management System, vertical sharing of PM data)	Moderate (aim of use to monitor, create focus)	Emergent	Age: 35-40 Education: MBA
	Moderate (traditional, customer, internal process)	Moderate (Some collaboration between leaders, and managers, employees)	Low (Regular informal use of Performance Management System, vertical sharing of PM data)	Low (aim of use to monitor and control)	Emergent	Age: 55-60 Education: none

5.9. Cross-case analysis

Overall national culture appears to have an influence on both the design and use of performance measurement systems.

First, it seems three national culture dimensions have an impact on the design and use of Performance Management System. They are Power Distance, Individuality and Uncertainty Avoidance. Additionally, in all the cases Power Distance and Individualism dimensions of national culture appear to be closely related. i.e. Low - moderate Power Distance = High Individualism and High Power Distance = Low Individualism. In the following paragraphs, the researcher is using the respective square of Power Distance as the national cultural dimension to represent respective scores for both Power Distance and Individualism. No influence was found in Term Orientation and Masculinity. In the past, minimal influence was found, possibly due to the term's orientation influence on long/term decisions such as short/long term performance measures (Peterson *et al*., 2002; Harrison *et al*., 1994). Meanwhile, in the latter, it is mostly associated with pay and reward-related behaviour and does not influence group related decisions (Merchant et al., 1995; Chiang & Birtch, 2012), which is outside the scope of this research. Taking into consideration that all the investigated cases were SMEs and usually, SMEs are more concerned with short-term objectives (Smith Hudson & Smith, 2007).

5.9.1. The Influence of National Culture on the Design of Performance Management System

Regarding the design of the contents of performance measurement systems, one national culture dimensions seem to have a significant influence, i.e. Power Distance.

When Power Distance is tending towards low, leaders, prefer to use traditional financial performance measures as well as demonstrating a preference towards objective measures. (As seen in cases UK1, UK2, IT1, and IT2). Under normal conditions, performance measures are not developed, and traditional financial performance measures are preferred. However, when moderated by interventions forced by economic conditions, performance measurement systems were observed to improve to include *customer and internal process-oriented measures* (but not learning and growth), and there is a tendency towards more purposeful Performance Management System design.

(As in cases UK1, IT2). Learning and growth measures are more extensively used when the leaders are under 45 years old and have management education, and the business is underpinned by an innovation-based business model. (As in cases UK2, IT1; Figure 5.1).

When Power Distance is tending towards high, a more mature performance measurement system is apparent (i.e. Financial, customer and internal process oriented, as in cases (CH1, CH2, QA1, QA2). Also, it appears that there is a greater tolerance for the use of subjective measures. (As in cases CH2, QA2; Figure 5.1).

From the data, it appears that choice of performance measures is not affected by national culture except in the preference for, and tolerance of, objective versus subjective measures.

With regard to how the Performance Management Systems have been designed that is cultural controls, Power Distance and Uncertainty Avoidance appear to have the most significant influence. When Power Distance is tending towards low, leaders, collectively design the Performance Management System with managers (as in case UK1). They are likely to involve employees further in the design process when leaders' age is below 45 years old and have a management education, and the business is underpinned by an innovation-based business model (As in cases UK2, IT1).

Additionally, when Power Distance is tending towards high, and Uncertainty Avoidance is tending towards low, leaders prefer to design the Performance Management System themselves (As in cases CH1, CH2). Moreover, when Power Distance is tending towards High, and Uncertainty Avoidance is tending towards High (As in cases QA1, QA2), leaders prefer to design the Performance Management System themselves. However, this causes resentment amongst the managers; to reduce resentment, leaders involve some managers to a limited extent in target setting (Figure 5.2).

5.9.2. The Influence of National Culture on the Use of Performance Management System

Regarding how frequently the performance information and reports are used and how they are shared within the organisation, that is, technical controls, Uncertainty Avoidance and Power Distance appear to have the most significant influence. When Uncertainty Avoidance is tending towards low and when power distance is high,

performance information and reports are openly shared at all levels (As in cases CH1, CH2). Performance Management System is regularly used and systematically to review performance (As in cases CH1, CH2).

When Uncertainty Avoidance is tending towards Low, and when Power Distance is low, performance information and reports are openly shared at all levels (As in cases UK1), Performance Management System is infrequently used on a needs basis (As in cases UK1). Except when leaders are under 45 years of age and have management education and innovation based business model, Performance Management System is used regularly and systematically to review performance (As in cases UK2).

When Uncertainty Avoidance is tending towards high, and Power Distance tends towards high, Performance Management System is used regularly and systematically to review performance (As in cases QA1, QA2). The sharing of performance information and reports is limited to down the management hierarchy (As in cases QA1, QA2). When Uncertainty Avoidance is tending towards high, and Power Distance tends towards low, Performance Management System is occasionally used (As in cases IT2). The sharing of performance information and reports is limited to down the management hierarchy (As in cases IT1, IT2). Except when leaders are under 45 and have a management education and a business based on innovation, performance information and report are openly shared at all levels (IT1) Figure 5.3.

Concerning the purpose of Performance Management Systems, that are cultural controls of use: Power Distance and Uncertainty Avoidance appearing to have the most significant influence. When Power Distance is tending towards low, the purpose of Performance Management System use is primarily communicating and attention focusing (as in case UK1). Except when leaders are under 45 and have a management education and a business based on innovation, then the purpose includes employee engagement (as in case UK2). When Power Distance is tending towards high, and Uncertainty Avoidance is tending towards high, the purpose of Performance Management System use is primarily monitoring and control (as in case QA2). When Power Distance is tending towards High and Uncertainty Avoidance is tending towards Low, the purpose of Performance Management System use is monitoring and control as well as communications and attention focusing (as in cases CH1, CH2)

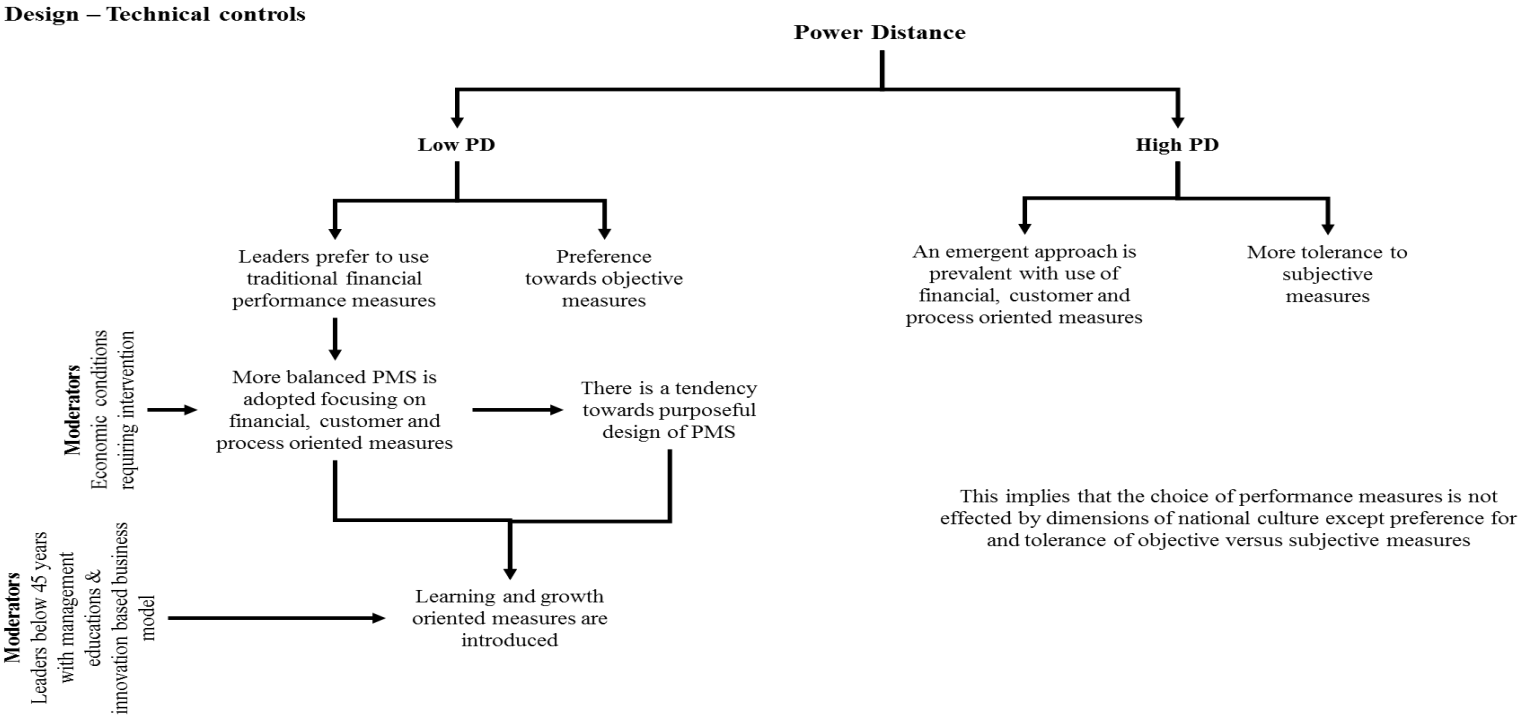


Figure 5.1 The Technical Controls of Performance Management System Design

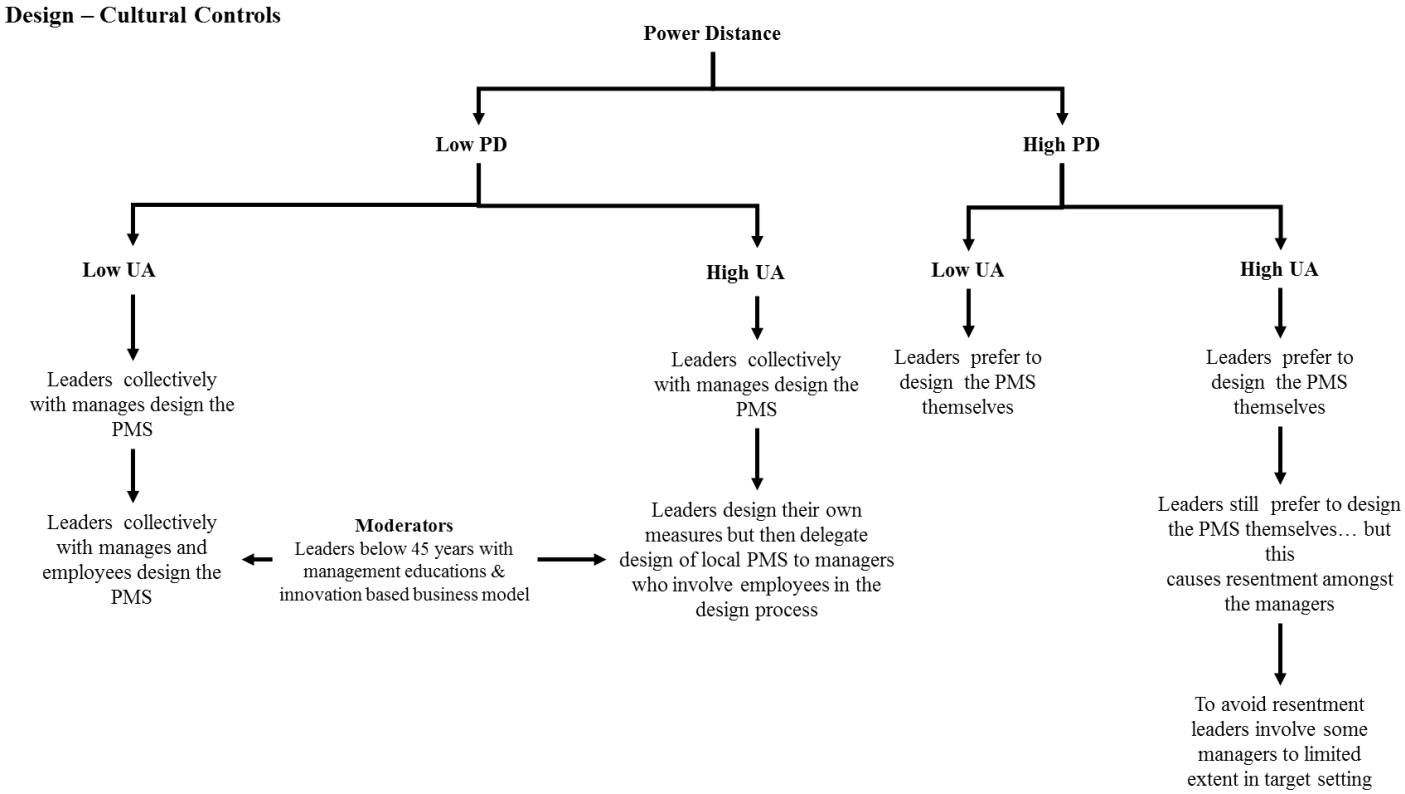


Figure 5.2 The Cultural Controls of Performance Management System Design

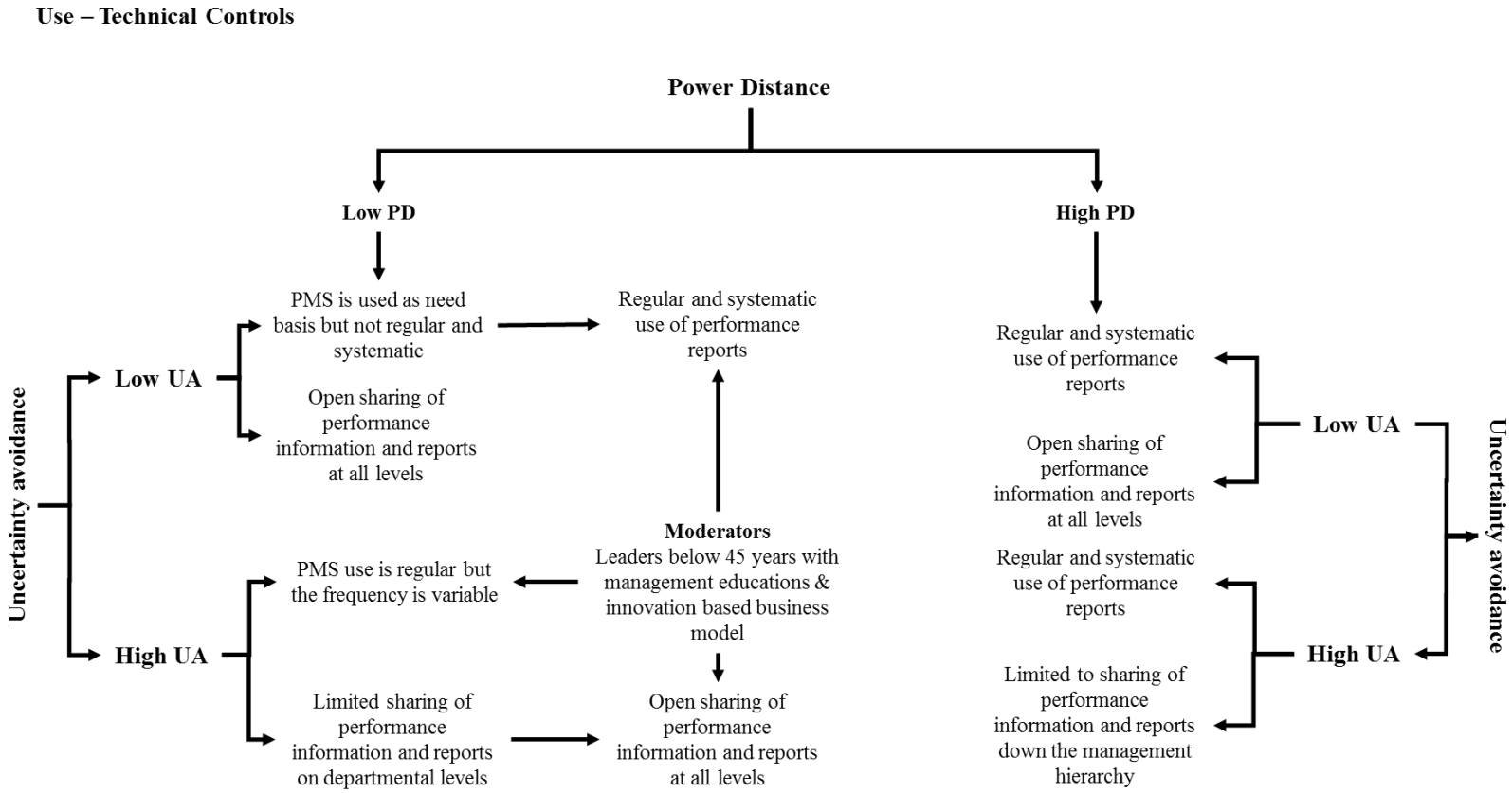


Figure 5.3 The Technical Controls of Performance Management System Use

Use – Cultural Controls

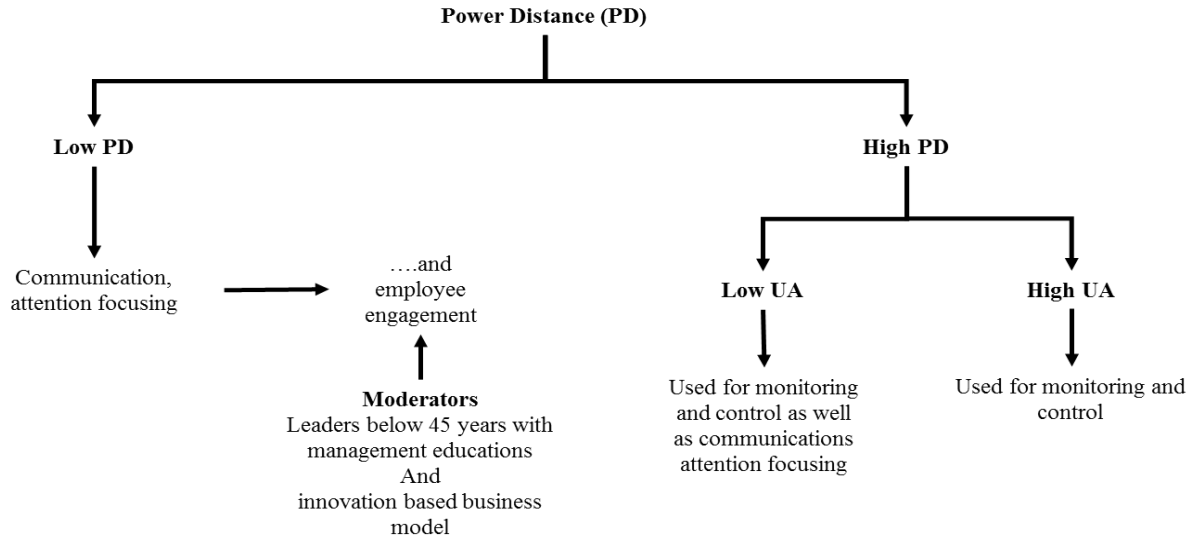


Figure 5.4 The Cultural Controls of Performance Management System Use

5.10. Summary of the Findings

In summarising these findings, the following propositions may be drawn:

5.10.1. Proposition 1 - When Power Distance is Low

1.1 Little importance is attached to performance measurement systems where the use of traditional performance measures is preferred, and the measurement systems are not developed and that more objective measures are preferred.

1.2 When any attempt is made to develop the Performance Management System, it is developed collectively between the leaders and managers

1.3 PMS is primarily used for communication and attention focusing

1.4 Performance Management System use is not regular

5.10.2. Proposition 2 – When the Power Distance is High

2.1 A more mature Performance Management System emerges over time with greater tolerance for subjective measures

2.2 Leaders prefer to design the Performance Management System themselves

2.3 Performance Management System is primarily used for monitoring and control

2.4 Performance Management System use is systematic and regular.

5.10.3. Proposition 3 – When Uncertainty Avoidance is Low

3.1 Performance information and report are openly shared

3.2 The levels of trust between leaders and managers is high. Consequently, the design of Performance Management System is accepted, and Performance Management System is used for communication and attention focusing

5.10.4. Proposition 4 – When Uncertainty Avoidance is High

4.1 Sharing of performance information and reports are limited to down the management hierarchy.

4.2 The levels of trust between leaders and managers is lower. Consequently, managers feel the need to get involved in the PMS design and use, though the PMS use is limited to monitoring and control, though leaders' use of PMS is limited to monitoring and control.

Chapter 6 Discussion and Conclusion

The research question of this research is: *how does National Culture impact on the design and use of Performance Management Systems*? Data was collected from eight manufacturing SMEs case studies in four national cultures, and information was gathered from semi-structured interviews, observations, discussion with experts, and material provided and published by the investigated organisations. The analysis of the findings suggest that national culture *does* influence the design and use of Performance Management System, as shown in the previous chapter. Twenty-two research propositions emerged, suggesting that Power Distance, Individualism and Uncertainty Avoidance impact on Performance Management System design and use. The impact of these dimensions can be described as follows:

The research findings confirmed that national culture dimensions of Power Distance (PD) and Uncertainty Avoidance (UA) impact the design and use of Performance Management Systems individually or combined. PD dimension impacts the degree of Performance Management Systems' adoption, the extent of collaboration in Performance Management Systems' design, the intended aim of Performance Management Systems' implementation, type of performance measures employed, and the frequency of Performance Management Systems' use. While UA dimension influences information accessibility and collaboration pattern in PMS use. The research also identified different moderators that affect the action of national culture dimensions such as leaders' age, and education and innovation based goods.

The research makes several contributions to the field of performance measurement: Firstly, the study states the influence of *single* national culture dimensions on the Performance Management Systems Design and Use in manufacturing SMEs. Secondly, the study states the influence of *combined* national culture dimensions on the Performance Management Systems Design and Use in manufacturing SME. Thirdly, the study employed a novel theoretical framework which enables estimating differences between PMS using the maturity of technical and cultural controls. Fourth, the study employed a qualitative inductive, fine-grained case study method of research, unlike the commonly used quantitative method. Fifthly, the study presented a four national cultures comparison, contrary to the commonly two national cultures comparisons that

dominate the existent literature. In Table 6.1, the research propositions were tabulated across acting national culture dimensions and moderators. A moderator variable is a qualitative or quantitative variable that affects the direction and strength of the relationship between an independent or predictor variable and a dependent variable (Baron & Kenny, 1986).

Table 6.1 Summary of the Propositions

	Propositions	National Culture				Moderators		
		Low PD / High IDV	High PD / Collect.	Low UA	High UA	Edu. /Age of leaders	Innovation based business model	Economic conditions
1.	Low PD SMEs prefer employing traditional PM	√						
2.	Low PD SMEs prefer to employ objective PM	√						
3.	Moderated low PD SMEs prefer non-traditional PMS adoption	√						√
4.	Low PD SMEs prefer to adopt purposeful PMS	√						
5.	Moderated low PD SMEs prefer employing learning and growth oriented PM	√				√	√	√
6.	Low PD SMEs prefer collaboration in PMS design between leaders and managers	√						
7.	Moderated low PD SMEs extend collaboration in PMS design to managers and employees	√				√	√	
8.	High PD SMEs prefer to adopt emergent PMS		√					
9.	High PD SMEs prefer to employ subjective PM		√					
10.	High PD SMEs prefer the centralisation of Performance Management System design		√					
11.	High UA & Low PD SMEs prefer involving managers partially in the PMS design		√		√			
12	High UA impact High PD SMEs to collaborate with managers in target setting	√			√			
13.	Low PD SMEs prefer PMS's aim to be communication and attention focusing	√						
14.	Moderated Low PD SMEs prefer PMS's aim to be employee engagement as well as communication	√				√	√	
15	High PD and UA SMEs prefer PMS's aim to be monitoring and control		√		√			
16	Low UA and high PD SMEs prefer PMS's aim to be communication and attention focusing as well as monitoring		√	√				
17	Low PD and UA SMEs prefer regular PMS use and open sharing of performance reports	√		√				
18.	Moderated Low PD and UA SMEs prefer regular PMS use and open sharing of performance report	√		√		√	√	
19.	Low PD and high UA SMEs prefer need basis PMS use, and limited performance information sharing at departmental level	√			√			
20.	Moderated low PD and high UA SMEs prefer regular PMS use and accessible sharing of performance data	√			√	√	√	

	Propositions	National Culture				Moderators		
		Low PD / High IDV	High PD / Collect.	Low UA	High UA	Edu. /Age of leaders	Innovation based business model	Economic conditions
21.	High PD and low UA SMEs prefer regular PMS use and share the PMS results		√	√				
22.	High PD and UA SMEs prefer systematic PMS use, but limit the sharing of PMS reports		√		√			

For example, in No., 1, the tendency of low PD SMEs to employ traditional PM, only low PD, and high IDV are ticked, signalling that low PD cultures prefer traditional performance measures. Another example, in No., 3, Low PD impact the adoption of low PD and the adoption of non-traditional PMS. This relationship is influenced by getting affected by adverse economic conditions (moderator). The moderator then tends to change the relationship ship between low PD and employing of traditional PM, encouraging in effect, low PD cultures in preferring non-traditional PMS employment. Next, the findings are discussed and compared with previous literature, where contributions and confirmations to knowledge are outlined.

6.1. The influence of single national culture dimension

The research findings contribute that three national culture dimensions influence the design and use of Performance Management System. Power distance, individuality and uncertainty avoidance. National culture dimensions' influence Performance Management System by acting in combined or individual manner. In the following, the researcher will discuss the findings based on their single or combined influence. The findings had been compared with previously published literature extending, clarifying, confirming or contributing. Table 6.2 introduce findings, current literature findings and whether the findings is confirming, contradicting or contributing.

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Table 6.2 Findings and published literature

National Culture Dimension(s)	Findings	Current literature	Contribution/ Confirming/ Contradicting
Action of Single National Culture Dimension			
Low PD/ High IDV	Low PD SMEs prefer employing traditional performance measures	No relationship between national culture and using traditional PMS (Dossi & Patelli, 2010)	Contradicting, probably due to the difference in organisation size of the two works
	Low PD SMEs prefer to employ objective measures	Low PD/ High IDV prefer the use of quantitative performance measures (Harrison et al., 1994)	Confirming
	Low PD SMEs prefer collaboration in PMS design between leaders and managers	Involvement of managers in the PMS design in low PD was suggested by (Harrison, 1993; Harrison et al., 1994; Chow et al., 1994; Li & Tang, 2009; Lau & Caby, 2010; Tsui, 2001)	Confirming
	Low PD SMEs prefer PMS's aim to be communication and attention focusing	Ueno and Wu (1993) suggested that low PD SMEs prefer PMS's aim to be communication and attentions focusing.	Confirming
	Low PD SMEs prefer to adopt purposeful PMS	High IDV cultures are described as Universalists, who prefer formally planned PMS designs (Trompenaars & Hampden- Turner, 2012)	Contribution
High PD/ Low IDV	High PD SMEs prefer to adopt emergent PMS	The existing research did not discuss the relationship between emerging PMS design and High PD/low IDV. The link between High PD/Low IDV has not been published before	Contribution
	High PD SMEs prefer to use balanced PMS, in which the prime aim of use is monitor and control	(Birnberg & Snodgrass, 1988; Al-Raisi et al. 2013)	Confirming

	High PD SMEs prefer the use of subjective PM	Leaders in high PD use subjective PM (Efferin & Hopper, 2007); Merchant et al., 1995 found that contextual factors impact the choice of PM	Confirm Efferine & Hopper, 2007 but contradicts Merchant et al., 1995. Probable reason is differing firm size
	High PD/ low IDV SMEs prefer centralized PMS design	High PD / low IDV SMEs tend to centralize PMS design (Harrison *et al.*, 1994; Efferin & Hopper, 2007; Etemadi *et al.*, 2009; Lau & Caby, 2010)	Confirmation
Low PD & High UA	High UA & Low PD SMEs prefer involving managers partially in the PMS design	Despite the impact of Low PD on preferring collaboration in the PMS design, but leaders in High UA still keep control.	Contribution
	Low PD and high UA SMEs prefer need basis PMS use, and limited performance information sharing at departmental level	The impact of UA on data sharing has been established (Efferin & Hopper, 2007). However, the impact of PD on the extent of PMS use is apparently not published	Contribution
High (UA & PD)	High PD SMEs prefer the centralisation of Performance Management System design, but because of managers' sensitivity, then tend to involve them in the target setting	There is a debate in the literature regarding the impact of not involving managers to collaborate in the PMS design. Harrison et al., 1994 observed negative consequences, while (Tsui, 2001; Li & Tang, 2009; Efferin & Hopper, 2007; Etemadi *et al.*, 2009; Lau & Caby, 2010; Aguinis *et al.*, 2012) observed managers in high PD cultures accepting it.	Contribution
	High PD and UA SMEs prefer PMS's aim to be monitoring and control	Confirms the findings of (Birnberg & Snodgrass, 1988; Al-Raisi et al. 2013)	Confirmation
	High PD and UA SMEs prefer the systematic PMS use, but limit the sharing of PMS reports	Since the aim of PMS in High PD is monitoring and control, it is safe to predict systematic PMS use, but there is no apparent research in the topic	Contribution
High PD & Low UA	Low UA and High PD SMEs prefer PMS's aim to be communication and attention focusing as well as monitoring	Confirm the findings of (Efferin & Hopper, 2007; Li & Tang, 2009)	Confirmation
	The use of PMS in High PD and low UA SMEs is regular and share the PMS results	Existing research did not discuss the impact of UA to performance information sharing	Contribution

Low (PD & UA)	Low (PD & UA) SMEs usually prefer collaboration in the PMS design,	Employees prefer participating in the PMS design; leaders are 'helped' in this by having low UA, which give them immunity from fearing risk of employees' participation. Findings resemble findings of Harrison, 1992, 1993	Confirmation
	Low (PD & UA) SMEs prefer a need-based use of PMS and open sharing of PMS results	Managers in low PD SMEs prefer autonomy (Hofstede, 2001). Thus, leaders only use PMS in need-based fashion Low UA cultures tend to be willing to trust other people and institutions. Thus information is shared. (Hofstede, 2001).	Contribution
Moderators: Economic conditions	Moderated low PD SMEs prefer non-traditional PMS adoption	Environmental conditions tend to influence PMS adoption regardless of the national culture (Merchant, 1984; Al-Dhubaibi et al., 2014).	Confirmation
Moderators: Leaders under 45 years of age, management educated, and the business is based on innovation	Moderated low PD SMEs extend collaboration in PMS design to managers and employees	There is evidence regarding moderators impact of super pass national culture's impact (Merchant et al., 1995) but the suggestion that moderators extend collaborating to employees is contribution.	Contribution
	Moderated low PD SMEs prefer employing learning and growth oriented PM	The impact of moderators had been found by Merchant et al., 1995. But this study describes the nature of moderators, and specify much of what they can do	Extending
	Moderated Low PD SMEs prefer PMS's aim to be employee engagement as well as communication	Confirm Merchant et al., 1995 finding that context factors can super pass national cultures	Contribution
	Moderators Low (PD & UA) and (Low PD and High UA) SMEs improve PMS degree of use, and sharing of PMS data	The impact of moderators has been acknowledged (Merchant *et al.*,1995). However, existing research do not discuss specific impact of moderators in improving the relationship between the extent of PMS use and the degree of information accessibility	Contribution

6.1.1. Low PD SMEs prefer employing traditional PM

Traditionally Performance Management Systems are a set of financial performance measures, such as sales, profitability, earnings and so on, which tend to monitor past performance (Kaplan & Norton, 1996). The findings of the eight case studies in four different national cultures indicate that SMEs in Low Power Distance cultures prefer the use of traditional performance measures (UK1, UK2, IT1, and IT2).

Hofstede, 2001 pointed that Low PD SMEs leaders prefer keeping pragmatic relationship between leaders and managers. Leaders' priority is to preserve this relationship, and since traditional performance measurement systems maintain the relationships, traditional PMS are preferred.

The findings contradict previous findings by Dossi and Patelli, (2010) who found that introduction of non-traditional Performance Management System in large organisations does not depend on national culture. Difference could be due to the different organisations size between Dossi & Patelli's and the present study. Therefore, the findings of this research are a contribution to the knowledge in the performance measurement literature.

6.1.2. Moderated low PD SMEs prefer non-traditional PMS adoption

The findings of eight case studies in four different national cultures indicate that moderators in the form of dire economic conditions or bankruptcy in low Power Distance SMEs trigger the use of non-traditional performance measures (Cases UK2, IT1).

As discussed earlier, leaders of low PD organisations prefer the use of traditional financial performance measures. However, when the wind of change blows and harsh *economic conditions* threaten organisations' survival, then leaders can convince employees of accepting the implementation of winning strategies, which could include implementing balanced performance measures. PMS target the past, present and the future (Kaplan & Norton, 1996), giving leaders better control over their organisations. The finding confirms previous work which suggested that environmental factors such as competition drive organisations to adopt more advanced Performance Management

Systems (Merchant, 1984; Al-Dhubaibi et al., 2014). Implying no impact for national culture, which confirms this study's finding.

6.1.3. Low PD SMEs prefer to adopt purposeful PMS

The results of research indicate that low PD SMEs prefer purposeful Performance Management Systems design (Cases UK1, UK2, IT1, and IT2). The PMS design is described as purposeful/deliberate when its plans are realised as intended, while a design can be described as emergent when it is realised despite or in the absence of intentions (Mintzberg & Walters, 1985). Purposeful/ deliberate designs are characterised by being formally planned and executed. On the other hand, people in high individualistic cultures have been described as a Universalist as they tend to be giving priority to executing tasks more than relationships (Hofstede & Hofstede, 2005), preferring achieving their aims and goals (Trompenaars & Hampden-Turner, 2012). From the above, it could be inferred that people in individualist/low PD cultures prefer implementing deliberate PMS design, i.e. formally planned PMS design rather than a PMS which respond to an emerging unpleasant contextual development.

It should be noted that studies that examine the underlying reasons behind the implementation of purposeful vs. emergent Performance Management System are scarce, and studies that investigate the influence of national culture on the preference of any of the emergent or the deliberate Performance Management System are exceedingly rare. The research findings contribute to the body of knowledge of performance measurement by stating that low Power Distance prefer implementing purposeful Performance Management System design.

6.1.4. Moderated low PD SMEs prefer employing learning and growth oriented PM

The findings indicate that moderated Low Power Distance SMEs tend to employ more advanced performance measures such as learning and growth-oriented measures (Cases UK2, IT1). These moderators in the form of management educated, less than 45 years' leaders, and business based on innovation. Merchant *et al*., 1995 found that PMS design is influenced by leaders' education and experience and not by national culture. The findings extend their conclusions by detailing the nature of moderators and explaining how these moderators impact the PMS design

6.1.5. Low PD SMEs prefer collaboration in PMS design between leaders and managers

The findings indicate that low Power Distance culture SMEs prefer collaboration in Performance Management System design between leaders and managers (cases UK1, UK2, IT1, IT2). Leaders in Low Power Distance SMEs prefer 'decentralised decision structures and less concentration of authority'. They are usually 'Democrats', and rely on support from managers and seek consultation from them, which leads to the managers' satisfaction and increased productivity. (Hofstede, 2001; p. 107). These findings confirm results from (Harriosn, 1992; Harrison et al., 1994; Chow et al., 1994; Li & Tang, 2009; Lau & Caby, 2010; Tsui, 2001).

6.1.6. Moderated low PD SMEs extend collaboration in PMS design to managers and employees

The findings indicate that moderators have induced organisations to extend collaboration in PMS design to managers *and* staff (Cases UK2, IT1). Moderators in the form of management educated, less than 45 years' leaders, and business based on innovation. As in Section 6.1.4., the impact of context seems to surpass the impact of national culture. In addition, extending collaboration to employees see to be the norm when the aim of Performance Management System was employees' engagement or communication Ferreira & Otley, (2009). However, published literature regarding research about the impact of national culture on the impact of moderators in low PD seems to be scared. Therefore, the current findings which suggest that moderators such as educated and under 45 years' age leaders and businesses which based on innovation tend to extend collaboration to include employees, is a contribution to the body of knowledge.

6.1.7. High PD SMEs prefer to adopt emergent PMS

The research findings indicate that High PD/low IDV cultures prefer emergent Performance Management Systems design (Cases CH1, CH2, QA1, and QA2). Emerging design may be initiated for several reasons such as market shocks, or even other unintended strategies. This could be explained by collectivist cultures who are known for their particularism (Hofstede & Hofstede, 2005). Particularist cultures focus on relationships and prefer informal networks to reach their aims and goals

(Trompenaars & Hampden-Turner, 2012), which is compatible with emergent strategies.

It should be noted that studies that examine the underlying reasons behind the implementation of purposeful vs. emergent Performance Management System are scarce, and studies that investigate the influence of national culture on the preference of any of emergent Performance Management Systems are exceedingly rare. The research findings contribute to the body of knowledge by stating that collectivist cultures tend to employ emergent design of Performance Management System, while individual cultures tend to employ deliberate Performance Management System.

6.1.8. High PD SMEs prefer the centralisation of Performance Management System design

The findings indicate that High Power Distance SMEs prefer to centralise the Performance Management System design (cases CH1, CH2, QA1, and QA2).

Hierarchy in high Power Distance organisations is characterised by the inequality between leaders and other members of staff. Employees obey and depend upon their leaders. On the other hand, leaders consider centralization as a norm of life (Hofstede & Hofstede, 2005). Subsequently, leaders in high PD cultures prefer Performance Management System design to be centralised. The research confirms previous research by (Harrison, 1992, Harrison *et al.,* 1994; Efferin & Hopper, 2007; Etemadi *et al.,* 2009; Lau & Caby, 2010).

6.1.9. Low PD SMEs prefer PMS's aim to be communication and attention focusing

The findings indicate that low Power Distance cultures SMEs prefer PMS's aim to be communication. Thus, in the regularly held meetings, the performance information was shared through different media and discussions were held to encourage their participation. (Cases UK1, UK2, IT1, IT2).

The probable reason could be due to the influence of low PD cultures which tend to provide space to motivate managers and employees and to promote equal rights and enact harmony between leaders and managers (Hofstede, 2001). Thus, different types of communication methods are needed to enhance and relate motivation between leaders, managers and employees; Performance Management System provides the needed platform to achieve communication between the different layers of management. As

several methods of reporting were observed to be used such as printed reports, face to face meetings and visual methods.

The research findings confirm the results of Ueno and Wu (1993), which stated that organisations in low PD cultures, prefer employing Performance Management System with the aim of communication and attention focusing.

6.1.10. Moderated Low PD SMEs prefer PMS's aim to be employee engagement as well as communication

The findings indicate the influence of moderators on low Power Distance SMEs who aim their PMS to include employee engagement as well as communication (Cases UK1, IT1).

Naturally, in low PD SMEs, the PMS's aim is communication and attention setting (Section 6.1.9). Moderators in the form of *management* educated, aged less than 45 years' leaders, and business based on innovation were observed to have extended PMS's aim to employee engagement. The findings extend Merchant *et al*., 1995 findings that PMS design is influenced by leaders' education and experience and not by national culture. Moderated Low PD SMEs engaged employees and extended performance information design to them, as well as using learning and growth measures; to develop employees and increase their performance.

6.1.11. Low PD SMEs prefer to employ objective PM

The findings indicate that leaders in low Power Distance and individualistic cultures prefer the use of objective performance measures. They are quantifiable and verifiable measures (Malina & Selto, 2004). They describe performance impartially, without relying on a leader's judgement. Since subordinates in low Power Distance value their equality with their leaders (Hofstede, 2001), they prefer performance measures that report results without interference from their leaders.

The findings confirm the results of Harrison et al. (1994) who state that low Power Distance cultures prefer to employ objective performance measures.

6.1.12. High PD SMEs prefer to employ subjective PM

The findings indicate that leaders in high Power Distance/ collectivist cultures are tolerant of subjective performance measures (cases CH1, CH2, QA1, and QA2).

Subjective performance measures are usually based on leaders' judgement arising from observing settings such as work attitude, interpersonal skills, communication and motivation (Hartmann et al., 2010). Hofstede (1980) had suggested that managers and employees in High Power Distance cultures are willing to accept leaders' judgmental evaluations. The findings confirm literature findings that leaders in high PD prefer to use subjective measures (Efferin & Hopper, 2007), but contradict the results of Merchant et al., 1995 who did not find a relationship between High power distance and subjective performance measures but instead suggested that contextual factors play a far more important role. A possible reason could be the difference in organisation's size, as Merchant *et al*., 1995 Empirical was performed on large organisations, while Efferin & Hopper's research was undertaken on an SME. Therefore, the findings support and confirm Efferin & Hopper's findings, as the findings were undertaken on SMEs.

6.2. The influence of combined national culture dimensions

This study contributes to the field by reporting the influence of combined national cultural dimensions of the design and use of Performance Management Systems. In the following several propositions on the effect of the combined influence of Power Distance and Uncertainty Avoidance are reported.

6.2.1. High UA & Low PD SMEs prefer involving managers partially in the PMS design

The findings indicate that low Power Distance SMEs invite managers to collaborate in the Performance Management System design. However, collaboration in PMS design differ depending on UA score. In low UA cultures, leaders are willing to collaborate freely with managers. However, in high Uncertainty Avoidance cultures, the nature of collaboration was observed to be different. In IT2, collaboration was extended to senior executives, under the IT2 leaders supervision. While in IT1, PMS design was decentralised, where various departments design their own Performance Management Systems. Hofstede, (2001) observed that leaders in high UA prefer hierarchical control (Hofstede, 2001). It seems that although in IT1 despite the absence of leaders from the actual design process, the decentralised Performance Management System design allowed them to the process indirectly.

It should be noted that studies that examine the influence of uncertain avoidance on Performance Management System design are scarce. The research findings contribute

to the body of knowledge by clarifying the role of Uncertainty Avoidance in the Performance Management System design.

It seems that PD is the dimension which is determining the behaviour and other national culture dimensions moderate its impact.

6.2.2. High UA impact High PD SMEs to collaborate with managers in target setting

Leaders in High PD SMEs prefer centralised Performance Management System design. However, the response of managers to being not involved has been observed to differ depending on UA score. In high UA cultures, managers resented their exclusion from the Performance Management System design. Prompting leaders to invite some influential managers for consultation in target setting (Cases QA1, QA2).

High PD cultures are characterised by the potential confrontation between leaders and managers (Hofstede, 2001). The leaders' sole control of the Performance Management System design process in high PD cultures, tend to trigger managers' pessimism and mistrust, especially in a high Uncertainty Avoidance culture (Ibid). Thus, resulting in resentment which affects the attitude and possibly the performance of managers. The dynamic business environment motivates leaders to improve the situation by giving some status to managers by inviting some of them to take part in target setting.

There is a debate in the literature regarding managers' attitude when they are not involved in the PMS design. Some authors found that excluding managers from Performance Management System design negatively affected their attitude (Harrison *et al.,* 1994). While others concluded that excluding managers in high Power Distance cultures from PMS design collaboration, resulted in little attitudinal impact, because managers were accustomed to being excluded from Performance Management System design (Tsui, 2001; Li & Tang, 2009; Efferin & Hopper, 2007; Etemadi *et al.,* 2009; Lau & Caby, 2010; Aguinis *et al.,* 2012). The findings underscore the role of UA score in high PD cultures which is a contribution.

6.2.3. High PD and UA SMEs prefer PMS's aim to be monitoring and control

The findings indicate that leaders in high Power Distance and Uncertainty Avoidance cultures prefer the objective of Performance Management System use to be monitoring and control (Cases QA1, QA2).

The probable reason could be due to two reasons: the influence of high PD tends to promote leaders to hold authoritarian values and to concentrate power in their hands. Leaders keep critical decisions under control at the top of the hierarchy (Hofstede, 2001), thus relying on performance reports to monitor organisational activities. While High UA culture tends to motivate leaders to be vigilant to reduce risks and uncertainty by introducing more control (Hofstede, 2001). The research findings confirm the results of (Birnberg & Snodgrass, 1988; Al-Raisi *et al*. 2013) who found that the main role of Performance Management System in high Power Distance cultures is to control and monitor performance.

6.2.4. Low UA and high PD SMEs prefer PMS's aim to be communication and attention focusing as well as monitoring

The findings indicate SMEs in High Power Distance and Low Uncertainty Avoidance cultures prefer the Performance Management System's aim to be communication and attention focusing as well as monitoring and control (Cases CH1, CH2).

The probable reason could be due to two reasons: the influence of high PD which promotes leaders to hold authoritarian values and concentrate power, and the influence of Low UA culture which promotes managers' tolerance and preference for lenient rules as most people are trusted (Hofstede, 2001). Leaders in Low UA cultures tend to use different support methods to encourage innovation (Ibid), and one of these support methods is communication and drawing the attention of employees.

The research findings confirm previous findings (Efferin & Hopper, 2007; Li & Tang, 2009, p. 201) that observed that the Performance Management System aim in a Chinese public organisation had been communicating and 'influence decision making' to the body of knowledge by stating that leaders in low UA and high PD cultures prefer the aim of measurement to be communication and attention focusing as well as monitoring and control.

6.2.5. *Low PD and UA SMEs prefer need-based use of PMS and open sharing of PMS results*

The findings indicate that low Power Distance and low Uncertainty Avoidance cultures prefer the need-based use of PMS and open exchange of PMS results (Case UK1).

The probable reason could be due to two interacting dominant national culture dimensions, i.e. low PD and UA. In Low Power Distance cultures, autonomy is preferred unlike the norms in hierarchical organisations where leaders tend to control decisions, and thus need a continuous stream of data to help in effective control (Hofstede, 2001). Thus, low PD culture SMEs, monitoring does not have the same priority as in hierarchical organisations, and hence the Performance Management System use is need based.

In addition, leaders in low UA cultures have less regard for stability and permanence in relationships, and would be willing to trust other people and institutions, and are prepared to share Performance Management System results on all levels.

Studies that had investigated the influence of national culture on the degree of Performance Management System use and degree of information sharing are exceedingly rare. The research findings contribute to the body of knowledge by stating that SMEs in low PD and UA cultures prefer the limited use of Performance Management System and the open sharing of Performance Management System data and reports.

6.2.6. *Moderated Low PD and UA SMEs prefer regular PMS use and open sharing of performance reports*

The findings indicate that moderators influence Low Power Distance and Uncertainty Avoidance cultures prefer the regular and systematic use of Performance Management System with the open sharing of performance information and reports. Moderators in the form of leaders under 45 years, who are qualified in the art of management, as well as businesses which are based on innovation (Case UK2).

Studies that investigate the influence of moderators on low PD and UA, enhancing the degree of use are extremely rare. The research findings contribute to the body of performance measurement knowledge by stating that moderators in low PD and UA cultures appear to be influencing the regular use of Performance Management System, and the open sharing of Performance Management System data and reports.

6.2.7. Low PD and high UA SMEs prefer need basis PMS use, and limited performance information sharing at departmental level

The findings indicate that SMEs in low Power Distance and high Uncertainty Avoidance cultures prefer the variable use of Performance Management System and tend to restrict the Performance Management System sharing of data and reports. The probable reason could be due to two national culture dimensions, low PD and high UA (Cases IT1, IT2).

Low Power Distance cultures prefer autonomy unlike hierarchical organisation, PMS use is need-based, indicating that low PD SMEs prefer variable use of Performance Management System, however, because high UA cultures have high regards to stability and permanence in relationships, and would be unwilling to trust other people and institutions easily, the sharing of performance results in departmental level is limited. The findings regarding exchange of information being influenced by high UA had been established by Efferin & Hopper, (2007), but the impact of PD on the extent of PMS use is not apparently published.

The combined findings contribute to the body of knowledge.

6.2.8. Moderated low PD and high UA SMEs prefer regular PMS use and accessible sharing of performance data

The findings indicate that moderators influence organisations in the low Power Distance and low Uncertainty Avoidance cultures to prefer the use of Performance Management System to be regular and systematic and the open sharing of performance information and reports (Case UK2).

The findings of this research suggest that Low PD and High UA SMEs use Performance Management System regularly unlike what is expected in low PD cultures which use PMS in need basis. This is possible due to the action of moderators in the form of management educated leaders who are under 45 years of age and innovation oriented organisations. These findings confirm similar findings by Merchant et al., 1995.

6.2.9. High PD and low UA SMEs prefer regular PMS use and share the PMS results

The findings indicate that High Power Distance and Low Uncertainty Avoidance SMEs prefer regular PMS and open sharing of performance information and reports (Cases CH1, CH2).

The rationale behind such a choice is the impact of High Power Distance which prefers centralization in decision-making, and thus need a continuous stream of knowledge. Therefore, leaders in High PD has the use of Performance Management System in their top priorities. Meanwhile, low UA culture has less regard to stability and permanence in relationships and would be willing to trust other people and institutions. Thus, they do not have an issue with information sharing.

Studies that investigate the influence of national culture on the degree of Performance Management System use and degree of exchange of information are exceedingly rare. The research findings contribute to the body of knowledge by stating that High PD and Low UA SMEs appear to be influencing the regular use of Performance Management System, and the open sharing of Performance Management System data and reports.

6.2.10. High PD and UA SMEs prefer systematic PMS use, but limit the sharing of PMS reports

The findings indicate that High Power Distance and High Uncertainty Avoidance SMEs prefer the regular use of Performance Management System but limited exchange of performance information and reports (Cases QA1, QA2). The rationale behind such a choice is the High-Power Distance impact which prefers centralization in decision-making (Hofstede, 2001), and thus need a continuous stream of knowledge. Therefore, leaders in great PD has the use of Performance Management System in their top priorities. Meanwhile, High UA culture has high regard to stability and permanence in relationships and would be less willing to trust other people and institutions (Hofstede, 2001). Thus, they restrict information sharing. This finding confirms the conclusion of Efferin & Hopper, (2007) who observed that Chinese Business owners in Indonesia did not share information with their managers due to trust issues.

Studies that investigate the influence of national culture on the degree of Performance Management System use and degree of information sharing are exceedingly rare. The research findings contribute to the body of knowledge by stating that high PD and UA

cultures appear to be influencing the regular use of Performance Management System, and the restrictive sharing of Performance Management System data and reports.

6.3. Summary of the findings

6.3.1. How does National Culture impact on the Performance Management System design?

The impact of Low PD culture

- PD culture tends to induce the adoption of performance management system, as low PD cultures, leaders prefer traditional Performance Management System, while high PD prefer the use of balanced Performance Management Systems.
- PD culture tends to induce the adoption of different performance management system designs, as it is *purposeful* in Low PD cultures and *emergent* in high PD cultures.
- PD culture tends to influence the degree of collaboration of managers in the Performance Management System Design. Great collaboration in Performance Management System design is expected in Low PD, while low collaboration in Performance Management System design is expected in High PD.
- PD culture tends to induce the choice of type of Performance Measures regarding their objectivity and subjectivity. It is objective performance measures in low PD, while it is subjective performance measures in High PD.

The impact of UA

- UA culture tends to influence the pattern of collaboration in Performance Management System design, depending on the kind of the current score of PD. Thus, moderate collaboration is expected in High UA cultures, while great collaboration in Performance Management System design is expected in low UA cultures.

The impact of moderators

- Harsh economic contexts tend to increase the likelihood of balanced Performance Management System adaptation in low PD cultures.
- Leaders who are under 45 years of age and are management educated tend to prefer employing learning and growth Performance Measure, in Low PD cultures.

- Leaders who are under 45 years of age and are management educated tend to prefer extending the collaboration in Performance Management System design to managers *and* employees, in low PD cultures.

6.3.2. How does National Culture impact on the use of Performance Management System?

The impact of Low PD

- PD culture tends to influence the choice of the Performance Management System aim of use. Thus, in low PD culture, the aim of use is communication and attention focusing while the objective of use in High PD is monitoring and control.
- PD culture tends to influence the frequency of Performance Management System use, in low PD, the frequency of Performance Management System use is need-based, while it is frequent in High PD.

The impact of UA

- UA culture tends to influence the degree of information accessibility. In High UA, the flow of information is restrictive, while it's more accessible in low UA.

The impact of moderators

- Leaders who are young and are management educated prefer the aim of Performance Management System to be employee engagement as well as communication in low PD cultures.
- Leaders who are under 45 years of age and are management educated, prefer low access to Performance Management System reports in Low PD and High UA cultures.
- Leaders who are under 45 years of age and are management educated prefer a frequent degree of Performance Management System use in Low PD and UA cultures.

6.4. Conclusion

Understanding the influence of national culture helps to identify and explain the possible reaction of the Performance Management System users in different national cultures, and contribute to provide appropriate mechanisms about the way Performance

Management System should be designed and used if applied in a different location from where it has been designed. The present research highlights the influence of various dimensions of national culture, which had been previously researched, but in fragmented, incomplete and from a management accounting perspective. A summary of the contributions, confirmation and extension, had been tabulated in Table 6.2. The major contribution of this study is specifying single and combined influence of national culture dimensions in addition to specifying influence oh by moderators.

6.4.1. Theoretical implications

The purpose of this thesis was to explore the influence of national culture on the PMS design and use. Generally, the findings agree with researchers who supported the notion that national culture has impact on performance measurement (such as Carmona et al., 2011; Chow et al., 1999; de Waal, 2006 and others). However, the findings contribute to knowledge by offering more details on how individual and combined national culture dimensions impact the design and use of PMS and how national culture dimensions' impact PMS implementation and how moderators can interfere with national culture influence. In addition, the findings assume that moderators could be the explain the failure of previous research works who concluded that national culture has insignificant impact on Performance Management Systems.

In this section, first, the research contributions are presented, second, an explanation is offered to contradictions with past literature will be explained. Third, contributions to practice are presented, fourth, limitations of the research are presented and fifth will suggest some ideas for future research.

The research Contributions

The research addressed a gap in literature regarding the need for understanding the impact of national culture on the design and use of PMS. In this subsection, contributions in the impact of power distance, uncertainty avoidance, PMS implementation type, and the impact of moderators has been presented

Impact of Power Distance

Power distance had been found to impact the frequency of PMS use. In low PD cultures, PMS use was observed as need-based, while in high PD, PMS use was observed as

regular. The disinterest from PMS use is surprising. Does it imply that top management does not have the need to measurement? or does it imply that it was abandoned by top management because of management resistance? Top management in low PD use PMS for communication and attention focusing (from the findings). Thus, when the aim of communication is achieved by other means, it is logical that top management limit their PMS use. Probably, the stable nature of businesses, support the need bases approach towards PMS use, especially in SMEs which are working in niche products and services.

There is another reason for low frequency of PMS use when employees value their autonomy in low PD cultures (Hofstede, 2001). They feel alienated when subjected to PMS review scrutiny; then they resent top management's interference in their responsibilities, which force top management to limit the use of PMS a PMS only when needed.

Now, when top management are compelled by economic crisis, and threatened organisations' existence, they change their attitude towards measurement, and they can convince managers by accepting regular PMS use.

Impact of Uncertainty Avoidance

Low Uncertainty Avoidance SMEs had been observed to accommodate free access of PMS data and performance reports. Information sharing could be due to the high trust seen in Low UA cultures between top and middle management (Hofstede, 2001). However, the present research findings were contradicted by Efferin & Hopper (2007), and confirmed by Li & Tang, 2008. However, each one of the three-empirical works had a unique contextual factor. They define the organisation size, location of the cases study, either inside or outside the intended national culture. This research and Efferine' s were SMEs, while Li & Tang, is large state-owned enterprise. This research and Li & Tang, exist in mainland China, while Efferine' s existed outside China. It seems from the finding, that location of an organisation matters, for high UA cultures to exhibit information sharing could also need to exist in its original geographic location.

The findings had observed that UA score influenced the centrality of PMS design practices. PMS design in High PD is centralised (Harrison, 1992, 1993). However, in High PD and UA, middle managers resented little involvement, and it seems that trust

was an issue. In addition, participation in PMS design boosted middle managers' position in front of their employees. Thus, top management offered limited participation to some managers in the form of consultation only. While top manager still retaining the final say in their managers' involvement, though the little participation was impactful in regaining trust. While in low UA and high PD cultures, the relationship between top management and other employees was based on trust, and staff trusted their employers and were not involved in the PMS design.

National culture Impact on PMS implementation

The research suggests a relationship between Low PD/High IDV cultures and purposeful PMS implementation. The relationship between low PD/high IDV and universalist cultures was established by Hofstede, 2001; Universalist cultures place great importance on rules, laws, values and regulations comes before relationships. The findings are compatible with the universalist mentality, and it constitutes a contribution.

On the other hand, findings observed that in High PD/low IDV cultures, emergent PMS implementation was observed. The relationship between High PD/low IDV and Particularist cultures was established by Hofstede (ibid). Particularist cultures believe the circumstances and relationship dictate rules and their responses change bases on existing conditions and the identity of involved people. It seems that the findings are contribution and appear to be compatible with Particularist mode of thinking.

Action of moderators

The impact of moderators had been established by Merchant et al., 1995. This study describes the nature of *positive* moderators, and contribute to what moderators could establish. Positive moderators because the observed moderates in the study were helpful towards better implementation and use. They are economic situation, management and learning age of leaders.

First, economic situation encouraged middle managers, and leaders in low PD to reduce their resistance to measurement, and start proper use, and employ balanced PMS. That is survival encouraged PMS implementation and use. Second, leadership when management educated, and young that 45 years of age, was found to employ more High maturity performance measures and aim performance measurement at increasing employees' engagement.

The actions of moderators stress that national culture is a major factor in PMS use and design, but contextual factors could overtake national culture's impact.

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The research had found a moderating action of UA in limiting managers' collaboration in PMS design. It has been suggested that Low PD cultures preferring collaboration in the PMS design (Harrison, 1992) but in the Italian cases, which have high UA scores, and moderate PD score

The findings show that different factors influence the Performance Management System design and use. First, is the national culture. The findings show that it has influence. Power distance influences the adoption of (balanced/traditional) performance measures, the choice of (collaboration/ centralization) in Performance Management System design, the extent of Performance Management System use, the aim of Performance Management System use (monitor and control/communicate), and the choice of designing (purposeful/emergent) Performance Management System. Uncertainty avoidance influences the degree of information accessibility, the extent of trust between leaders and the rest of the staff. Individuality influences the leaders' preference for using subjective or objective measures. Additionally, a combination of uncertainty avoidance and power distance influences the extent of Performance Management System use and the degree of information accessibility and the attitude of non-participating managers in high power distance cultures. The findings indicate that the choice of performance measures does not usually depend on national culture, but on commercial logic and convenience, except for the preference for objective/subjective measures.

Second, contextual factors seem to influence would be a national culture's impact. As findings indicated that the effect of four moderators: education and age of leaders, the degree to which the business is based on innovation, and economic conditions.

6.4.2. Contribution to Practice

Globalisation, deregulation, innovation, and high customer expectations have resulted in strong competition, which means that organisations face challenges. These challenges

require them to expand and create synergies beyond their borders. The findings of the present research suggest that national culture influences the design and use of Performance Management System; thus, it is safe to conclude that the implications of Western management practices should be studied, as they may require amendment before they can be applied in non-western contexts. Expanding organisations need to know the consequences of using their Performance Management System in new cultures, as the findings clearly show that national culture influence the design and use of Performance Management System. Leaders, investors, practitioners and others who are planning to use their Performance Management System beyond their native origins, should be aware that the notion that one size fits all is *not* applicable in performance measurement, even Performance Management Systems which are designed within the Western domain.

Leaders in high Power Distance cultures, play a fundamental role in motivating individuals, enacting new strategies, and implementing Performance Management System. They help to ensure employees understand the change process and should assist in smooth implementation by communicating the influence of new changes, motivating both managers and employees. Stakeholders should strive to enhance leaders' capability through education programs and training.

In high Uncertainty Avoidance cultures, managers and employees' resistance to change should be overcome by ensuring adequate support and training. The active participation of leaders reduces uncertainty and frustration resulting from Performance Management System implementation and reassures managers and employees. They should explain ambiguous Performance Management Systems and supplement inadequate Performance Management System information.

The research has shown that the influence of reduced collaboration on managers' attitudes, in high Power Distance cultures depends on the Uncertainty Avoidance score. Even when managers are invited to collaborate on cases which had a high uncertainty avoidance score, the extent of participation was limited. Thus, the notion of importing managerial practices should be treated with caution.

6.4.3. Limitations

The findings of this research are limited to the eight cases that have been studied, which affects the issue of generalizability, as discussed before, though findings that support the existing theory are more widely applicable. Meanwhile, these conclusions extend existing theory are considered propositions that are plausible in the context of the bodies of literature in which they are positioned but require further empirical validation.

Some cases such as Case UK1 we carried out based on one interview, but with the support of rich discussion with learned experts about the organisation. The researcher is satisfied that the combination of the single interview, external interview and the data available about the organisation, has sufficiently provided the content necessary for the case, though, still suggests that it would have been better to have more interviews. Thus, it could be considered a minor flaw in the research.

The research design was aimed at reducing the influence of contextual factors such as organisation size, occupational culture. However, other contextual factors could have had some influence, such as the type of governance structure and leaders attributes in terms of education, age, personality, leadership, gender, and political influences, the state of the economy, the state of competition, local labour conditions and so on.

The research design was based on two cases from each national culture, from the manufacturing sector. That said, the conclusions of this study can be generalised to other sectors, though they cannot represent their cultures. Future studies could apply the framework developed in this study and test its applicability in different contexts.

Finally, the researcher was unable to interview all of the managers who were involved in the Performance Management System design and use, due to strains on access, management time, and unavailability of translation services. For most parts, leaders and managers in each organisation were interviewed as described in the research protocol; therefore, the data collected can still be considered a valid reflection of the Performance Management System design and use. Nevertheless, greater access, time and resources could be helpful for further research.

The study has successfully addressed the research objective and provided the appropriate analytical tools to answer further research questions, investigating the influence of other types of culture: such as organisational and occupational cultures. In this section, some topics for further research are suggested.

6.5. Future Research

First, future research should investigate the influence of other dimensions of national culture that were not covered within the scope of existing research, such as masculinity, and long/short term orientation, where the examined cases did not provide any support for the further inquiry. Second, the existing research employed Hofstede's framework of national culture researcher, and it could be useful if future researchers employ other national culture typologies such as House et al. (2004) and Trompenaars and Hampden-Turner (2012). Third, as indicated in the limitations, not all the contextual factors have been controlled. Thus it would be useful if future research could control additional contextual factors such as labour market, legislation, governance and the influence of occupational culture. Fourth, due to the use of qualitative methodology, future research using a quantitative research would be a contribution. Fifth, future research should investigate the influence of national culture on performance measurement and reward and compensation, which could be helpful for expanding organisations.

6.6. Personal reflections

At the end of this thesis, it is fair to acknowledge the challenges faced during the course of the journey both professionally and personally. The challenges were amplified by the fact that I had joined academia from the operative field, which showed its toll on me during the writing stage. The difficult task of adjusting to the demands of social science research and scholarship was challenging, especially when the research subject required extra attention because of its evasive and elusive characteristic.

However, my previous experience equipped me with the necessary motivation to dive deep in the performance measurement arena because I knew the need of this knowledge for the common good of people and organisations. Lack of objective criteria to measure the performance of their organisations, plus the debate resulting from proponents and opponents of implementing new management fads resulted in underestimating the significance of performance measurement in organisations. Many countries who happened to be not western are facing great crises, and there is a need to introduce to them advanced managerial capabilities, which, if presented to them without being adjusted for national culture could lead to an opposite effect. Thus, there is a need to

investigate the influence of national culture on many of these fads and present it in an acceptable way to the people who need it most.

The research has equipped me with the necessary tools to address a research question through a series of steps, in order to attain the research objective via sound, accepted, and rigorous steps. However, I have to admit that academic writing proved to be my weakest skill, and I had to write the same sections times and times around. Thanks to my supervisor who had guided me slowly by surely into some writing ability, but I acknowledge that I have a lot to cover.

I am glad to say that my expectations at the end of the journey are similar to what I had planned, but this happy fact is saddened with my country facing the worst crises since its creation, causing my disappointment, knowing that my new acquired knowledge might not be needed in my country, as the most basic understanding are now most needed such as the art of communication, coexistence, and conflict resolution.

Finally, I hope that this work is expanded and used by mentioning national cultures, especially developing countries' cultures. At least, I hope that my children will look forward towards this thesis and imagine the extent of sacrifice and hard work, so that it will be an example for them to start planning their own PhD or projects in times to come, looking for what their country needs most. Therefore, if this target is achieved, then this PhD has achieved its aim.

CHAPTER	CONTRIBUTION
Chapter 1: Introduction	
Objectives	**To present research overview, a summary of the findings, significance and outline of the thesis.**
Key findings	**Presented an overview of the research and drew outlines of the findings and outlined the layout of the thesis.**

Table 6.4 Summary of the Chapters

Chapter 2: Literature Review	
Objectives	• **To review previous literature findings on the origin of performance measurement (PM), Performance Management Systems (Performance Management System), Performance Management System implementation factors, and research trends of PM.** • **To review literature findings on elements of the Performance Management System lifecycle, such as design, implementation, use and review.** • **To review literature findings on national and organisational culture.** • **To systematically review previous knowledge on the influence of national culture on Performance Management Systems.** • **Forming the theoretical framework required to investigate the influence of Performance Management System.**
Key findings	**Introduction to performance measurement definition and introducing elements of the Performance Management System lifecycle of the design, implementation, use and review and pointing the role of culture.**

	Choosing and introducing Hofstede's national culture framework to assess the influence of national culture on the Performance Management System lifecycle. **Undertaking systematic literature review process to discover the influence of national culture.** **Concluding that the knowledge regarding the influence of Performance Management System in previous published literature is insufficient.** **Constructing a theoretical framework to evaluate the influence of national culture on Performance Management System, limiting the research objective to the just the design and use of Performance Management System.** **Therefore, the research objective is to explore the influence of national culture on the design and use of Performance Management System.**
Chapter 3: Management Research Methods	
Objectives	**To explore the nature of the research paradigm and the different philosophical assumptions in social sciences.** **To understand the relationship between philosophical paradigms, strategies, methods and methodologies associated with the research objectives** **To outline different methods of research, and selection of cases.** **To outline different methods of data collection, analysis and display.** **To outline the criteria of the research design**
Key findings	**Ontology, epistemology, was outlined, then positivism, interpretivism, and critical realism were outlined.** **Methodologies related to different epistemologies were clarified.** **The research approach of induction and deduction were outlined.** **Experimental design, survey research design, archival research, mixed methods, ethnography, action research, grounded theory, narrative inquiry were outlined.** **Unit of analysis, conducting case study, data collection,** **Ways to select cases, developing a research framework, data display and analysis.** **Criteria to ensure research quality**

Chapter 4: Research Design	
Objectives	**To justify the chosen philosophical assumptions and their applications in technology and management research** **To illustrate the research instruments and data structure applied in order to achieve the research objectives.**
Key findings	**Ontological: Relativism** **Epistemology: Constructionism** **Research approach: Inductive** **Research method: case study** **Case study design** **Data Collection: outlined conducting of the case study** **Outlined the procedure of data analysis** **Quality of the research**

Chapter 5: Empirical Findings	
Objectives	**Produce the empirical findings of the research**
Key findings	**Proposition 1 - When Power Distance is Low** **Little importance is attached to performance measurement systems where the use of traditional performance measures is preferred, and the measurement systems are not developed and that more objective measures are preferred.** **When any attempt is made to develop the Performance Management System, it is developed collectively between the leaders and managers** **Performance Management System is primarily used for communication and attention focusing** **The Performance Management System use is not regular** **Proposition 2 – When the Power Distance is High** **A more mature Performance Management System emerges over time with greater tolerance to subjective measures** **Leaders prefer to design the Performance Management System themselves** **Performance Management System is primarily used for monitoring and control** **The Performance Management System use is systematic and regular.** **Proposition 3 – When Uncertainty Avoidance is Low** **Performance information and report are openly shared**

	The levels of trust between leaders and managers is high. Consequently, the design of Performance Management System is accepted, and Performance Management System is used for communication and attention focusing **Proposition 4 – When Uncertainty Avoidance is High** **Sharing of performance information and reports are limited to down the management hierarchy. The levels of trust between leaders and managers is lower than low UA cultures. Consequently, managers feel the need to get involved in the design and use of the Performance Management System and the use of Performance Management System is limited to monitoring and control by the leaders**

Chapter 6: Discussions and Conclusions	
Objectives	**To explore the influence of national culture on the design and use of Performance Management System, and compare the findings of previous literature.** **Theoretical implications, practical implications, limitations, suggestions for future research, personal reflections and summary.**
Key findings	**Presented an overview of the research and drew outlines of the findings and outlined the layout of the thesis.**

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